

aggatgcgaa cggaaaagag agggcggaata aaacggcaag ggtgaactgg acgagaggaa 180
aacgagaggc taatggcaaa taatgtcatg catgagataa gagtttgtga tgggtacctg 240
gtatgttgac ttttgtgtag actccccggc aacagcgcca gaaatccttc ttgctacctc 300
ttgagcattg cgttggtttc ccttaaaaag gaaaggggtga tgcagtaaaa tagtgtaagt 360
atttccccca gtttttgata ac 382

<210> 8764
<211> 389
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-B10

<400> 8764

gacgggcgac ggcagaggcg cccacatcaa cctcaaggtc aaggggcagg atggcaataa 60
ggttttcttc cgcacaaaga gatcgacaca gctgaagaag ctgatgaacg cctactgcga 120
ccgtcagtct gtggatctcg actccattgc tttccttttc gatggtcgta ggctccgtgg 180
tgagcagacc cctgatgagc tggagatgga ggaaggcgac gagatcgacg ccatgcttca 240
ccagaccgga ggggtgcttc ctgcacctta gaaggagctt gcttgacagcc tggctgttct 300
atgtcgtatg ctaccttag aactagagta aaatgtaaga agtgaaagaa cttgtgaggc 360
tatggttctg tgccataacc tgaggggggt 389

<210> 8765
<211> 350
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-B11

<400> 8765

cacaagaagg aaggcgagca caagaaggac ggggagcaca aggagggcat gatggagaag 60
atcaaggaca agatcagcgg cgacgaccac ggcgacggca agaaggacgg cgagcacaag 120
gagaagaagg acaagaagaa gaagaaggac aagaagcacg gcgagggcca caaggacgac 180
gacggccacg gcagcagcag cagcgacagc gacagcgact gagccagctc cggccgcgtg 240
cagtgcaggg gagatgaacg cgtgggttaa cttggagcgt gtggtagcat atgtatgtaa 300

tgcttgacat gtctcatgga tcttgtaatg taataaccgg ctgcactgca 350

<210> 8766
<211> 402
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-B12

<400> 8766

gacggctgag caaaatacag cttcacattg caacgctcgt aggctaggta ttcaatatag 60
agtcacacct atggctagca tgtctacatt acaagtaagg tcacttaatg ccatgtgtaa 120
tgttgagatg ttgccatcac tttcatgctt tgaagttttg cgtgtcctag ctttggaagg 180
cccctatgat tcacaccatc ctagtcatct tgagcatggt ggaaagttag ttcacttgag 240
gcacctcaaa ctatcgagca tggatatcgg tgagctccca aaggaaatag gatattctaa 300
gttcttggtg gtattggact taggtagaaa tagcataagt gaacttccag agagtattgg 360
ttgactaagt caactcaagt gcttgaacat atgcgaaaca ga 402

<210> 8767
<211> 405
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-B2

<400> 8767

cgggtagcga ggcgctaacg ctgcgtacag acttacatgt ccagtccata tgtgtggcca 60
cagattgcct agaagtgggtg acaaggatca aggatgactt cccatgcatg tttttcccaa 120
ttctgcaaga tatcaagcat cagagaagag ctttcagggc agtagagttt atccatgaga 180
gtagaagaca taatggagag gcgcattgct tagctaaggc tgccgcatca ctccctcccg 240
ggcgccatgt gtggctttct tctatgcccg atattatctg tattccaatg acagtttatg 300
cttaagaaag gatacagatt atgctaaaaa aattgtcttc ttttaacgcgt taaaaatata 360
atctttaaac aagatgtcgc ttaacaaaat atcgcatttt ttgtc 405

<210> 8768
<211> 363
<212> DNA

ccgggcccgc gatataacca acatgcttga cttcagctct gaagacatcg atggcatgga 60
 tgacgatgta ggagacgaac aggaaccagc acctataggg cgctggaagg ccacctcgtc 120
 atatgacata tatatggtgg atactccaaa agatggagat ggcatggaa cagtggggga 180
 tgacgcccc aagaaacagc cgaagcgccg gcgtcagcgg cgccgctcta aatcccgcca 240
 aagaaaaaaa cgggtgattct ggcacgggag ataatactac cccggatagc gccgaagaac 300
 acccacctca gcaagattca gcacaggaag atggagaagc cagccctcat gagagagcgg 360
 cagaccgaga ggtcgaggat gataactata cgctccctc cgaaga 406

<210> 8771
 <211> 448
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-053-Q1-E1-B9

<400> 8771

attcttgggc cgacgggcgc gcaaagaaca catcctcacc agcgtagctt ctccggcgtc 60
 cggccaacgc gctcactagc ctccgcctt cctccacatc tctcgcctc caccatcc 120
 agttcgtgcc attcgtgct ccaagacaag ggcattggcg tcggcggtg cggcaacgaa 180
 gctgatggtg cagagccaa ccatgaaggc agtagcacgg ggcagcgaca gcagcatgga 240
 gggcgctctc ttgtttggga aggtaatgga actgcaaata ggagtggcag cggcgaccag 300
 gatgcaaattg gaagtgggtc ccaaagacct tggaaagaaa tggcacgtga gcaaaggata 360
 tcaagaagct tttgatgtt gggaagcttg gagctgatgc ttcanataag ctgatggttg 420
 tcttttggct gtactggact atttaaac 448

<210> 8772
 <211> 414
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-C10

<400> 8772

attcacgggc cgacggcaga gcttataaac catagagaag ttggaatata gtgggtttaa 60

aaccaatata aataaataat gagtacaata cattaccttg aagtgggtgtt ttgttttctt 120
 togetaacgg agctcacgag attttctgtt gagttttgtg ttgtgaagtt ttcaaatttt 180
 gggtaaagat ttgatggatt atggaacaag gagtggcaag aacctaagct tggggatgcc 240
 catggcacc ccaagataatc taaggacact aaaaagccaa agcttgggga tgccccggaa 300
 gacatcccct ctttcgtcct catccatcgg taactttact tggagctata tttttattca 360
 ccacatgata tgtgttttgc ttggagcgtc ttgtatgatt tgagtccttc cttt 414

<210> 8773
 <211> 426
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-C3

<400> 8773

gtggcaactg gcacctggga tccaccatct gggtgcaaca actggaaaga aaacagaagg 60
 gggggaaaga ggtagcaaag caaccgtgag tactcatcct aagtactcgc aagcatcaga 120
 tctatactaa gtatgcattg gtatcaaattg gaaagggtgt atctgtgcac tgaactgcag 180
 aatgccagaa gagaggcgaa agcctagcct atagaagact aggatcttga agcagctcca 240
 agcatcttgc aatatgtaga agagtgtgac accccaaaag tttggccttg tttttagtta 300
 ttaaaatgtt gccaggaaat aaaacttttc caattgtcaa gttttaccct tttgtgattt 360
 tggatttatg cctcttgtgg gaaaaaactt caaagtgtat ctttgacttg tgtgccctct 420
 taaaaa 426

<210> 8774
 <211> 413
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-053-Q1-E1-C4

<400> 8774

cgggacaaca tcaacaacaa gctgcagctt gtcatagaaga gcggcaagta cacgctcggc 60
 tacaagaccg tcctcaggac cctcaggaac tccaaggcaa agcttgtgat ccttgctaac 120
 aactgccctc cgctccgcag gtctgagatt gagtactatg ctatgttggc gaagatcact 180

gtccaccact accatggaaa caatgttgat ttgggaactg cgtgtggtaa atacttccga 240
 gtctgtgcc tgagtatcat cgaccctggc gattccgaca tcatcaacgc aacaccagct 300
 ggccagtaaa cctgtgtatg ccattttcag tgtctcgtct gatgcgtcat ctaagggtgg 360
 tctagagtgt anttcttgct ggacttgatt tggctcctgtg tacatcattt atc 413

<210> 8775
 <211> 181
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-C5

<400> 8775

cccacgtcgt tgcttccttc atgtggatat tcttctagta ttacagtgcc tcccttgat 60
 atatcttcgt ctgcttgta atctcttgac caccacgtgg gtttttattg ttagttgata 120
 tgtggtactg gagatactga ttactgaacc gatctcttgg ttggaaaggg aaagcgcgat 180
 g 181

<210> 8776
 <211> 433
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-053-Q1-E1-C7

<400> 8776

ccgggccgac gggagacgga ggaggcgccc acatcaacct caaggtcaag gggcaggatg 60
 gcaatgaggt tttcttccgc atcaagagat ccacacagct gaagaagctg atgaacgctt 120
 actgcgaccg tcagtctgtg gatctcaact ccattgcttt cctttttgat ggtcgtaggc 180
 tccgtggtga gcagaccct gatgagcttg agatggagga aggcgacgag atcgacgcca 240
 tgcttcacca gaccggaggg tgctttcctg gcccttagaa ggagcttgct gcagcctggc 300
 tgttctatgt cgtatgctac ctttagaact agagtaaaat gtaagaagtg aaagaacttg 360
 tgaggctatg gttctgtgcc atagcctgag ggggggtctg gangtgaaac aacatcgag 420
 tactggtgat gtc 433

<210> 8777
 <211> 396
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-053-Q1-E1-C9

 <400> 8777

 aattctaggg ccgacgggag agagatgcgt gttactaatc agaatggtat tacgtttatc 60
 caccttggtg ccaaccatcg attaaactat cagatccgtg gacaaggtag gcattttcta 120
 agagggtttc aaaaacttat accaaaggaa tggattgata tgttcaatga acatgaaatt 180
 cagcttctca tatctggctc tttggaaagt ttggacattg atgacttgcg cttaaacc 240
 aactattctg gaggttatca tccggaccat gagattatcg atatgttggt ggagggttcta 300
 aagagcttca gttcagataa tcagaaaaag tttctcaagt ttgtgactgg atgttctcgc 360
 gggccactcc ttggatttga gtaccttgat cctaaa 396

<210> 8778
 <211> 406
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-053-Q1-E1-D12

 <400> 8778

 attcacgggc cgacgggctg gataaccaag ggattgttgg ccttcagagg caaatcatga 60
 aagaacaaga tgagggtctt gagaagctgg aacagacggt gctgagcaca aaacacattg 120
 cgctagcagt caatgaggag cttgacctgc atgcaagact gattgatgac ctagacgacc 180
 atgtggatgg tacgaactcg cgtctccagc gtgtgcaaaa gaggcttgcg gttctgaaca 240
 agcgcgcaa gggcggtgc tcttgcattg cctgctgct gtccaccgct ggtatagtga 300
 tgcttggtggt tattgtttgg ctctcatca agtatctgta acctctgccc aactcaaattc 360
 agtttcaagt gtgcagctct ttcaaagata gtatggttac ttccgc 406

<210> 8779
 <211> 395
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-D2

<400> 8779

acgggatgaa gcattggaca aaatatacaa gatgtcatga tagaggcgag ggtgtcccgga 60
tctttcgatg agatgataac tategatttg gtggagacga ctttgatgat ccgactacaa 120
acgtgcacga cgttgcgcct tagcaatcgc taaaccaatc tcctgagggtt actgacgatg 180
ccggaagcac ggtcagcctg accacgaagg tctattctga tgaggacatg actaccttgg 240
atatgaccaa aaatattgca tatatgcata tttgtcaggt gattttctagt gcaaactatt 300
caataatcta tttatgttat ccagaacaaa aatacttcac acacttttgt gttttgtcta 360
attgcaggtg tatgggacat ttgtacaatc cacat 395

<210> 8780

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-D4

<400> 8780

gatgccatcg atactgccat ccaatggctg gacacgaacc agctcgctga ggtggatgag 60
ttcgaggaca tgatgaagga gctggaggcc ctgtgcaacc ccatcatcgc caagatgtac 120
caggggtgctg gtgccgacat ggagggcggc atggacgacg acacccagc tgcacccggc 180
ggccctggcc ccaagatcga ggaggtcgac taaacagtca gttgttctgt tgcagaggcg 240
gcgaagcctg ctgcttatta taccgtgtct gtgttatctg agacttgagg ttgtggtggt 300
tattgttttg cttccgagtg gtcggagtta ttccgtgcga gttgcaacat tcgtggtagt 360
ggatcaacgg ttatgatgtc tcacgtcaaa gtata 395

<210> 8781

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-D5

<400> 8781

ccgggccgac gggatcttga agcggatgga tctgtgccgc aagtacgctt ttggcaagat 60

gctcgtgatt ggttctgagg cgcccttcaa agtcaagggg ctgtggctct tccgtgggca 120
 ggacatccct gagttcgtca tgaatgaggt ctatgacatg gagctctacg agtggactaa 180
 ggttgacctc tccgacgagg ccagaagaa gcgtgtcgag gccatgatcg aggaccttga 240
 gccgtttgag gggcaggcct tgctggacgc caagtgttc aagtaagcga acagtgcctg 300
 ggatcgtgat ggcggtggca aagaaactat ctaggacttg aaattcagtg tcgaaacagt 360
 tggctctttt tttggaagag tttgcttgtt acttaatggc tatttgacct ggtgaactag 420
 ttaatt 426

<210> 8782
 <211> 417
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-D7

<400> 8782

tccccgggccc acgggggagag caactggcgg agctgtaccc acgtgaccac cgtgtgctga 60
 gggacctggc gctccggtcg gagtacctgg tcggccagaa cgtcacgctc gatgtcgctc 120
 ggttcagtgg cgccttgtcc cgtgctctgg agcttcttca ccattagaag aactccaca 180
 gggcgtagat tgtttacaag ataattagtc aagtgtttta ctactgcagt aaaataaagg 240
 gtctggctaa atcatgtgtg agctgttga tcgctgtcac acggtcagaa ggcaaattcg 300
 aaggctaata tagggactaa actctctcac tcaactaagg attagcaatt ccataagata 360
 tagtgaaaca taacacaaat tggaacaacc aaggttgaat caggtatctc ttcagat 417

<210> 8783
 <211> 384
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-D9

<400> 8783

acgggagctg tatgcggtgg tgcataagg agcctgtcca tctccactag agttatccca 60
 agtttcactt cacatcgtga tgttgtttta cctttttttt cttgtcgctc tcccgctgcc 120
 tgctataacg gacagcgctc cctgttggcg ccgcccggg cgggggtggt gccctggcgg 180

cggaggggtgt atgtcctctg ccgccgggtg ctccctgct tgtacctaga tggttgggta 240
 ctctttccgt ccattgtcac cggctaacat tgtgataata tcagtctggg taatgttaga 300
 ttaagctgtt gtttgtgtcc caaaaaaaaa aggccgtcca tttaaaaaat tctaacagga 360
 aaaaaccgaa gagtcacgca actt 384

<210> 8784
 <211> 204
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-E1

<400> 8784

gtcggtattg cagatggctt ggcaccaaca ctgttcaatt cagctcccca ggttgcgttg 60
 ttctcttccc gggggcctga tgtaaaagat tttagcttcc aagatgctga tgttctcaaa 120
 gctgatatac tcgctcatgg taatcacata tgggccgcat gggcacctaa tggaacagat 180
 gtattacact acgcttggga agga 204

<210> 8785
 <211> 395
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-E10

<400> 8785

ccgacgggcg acggcgagg cgccacatc aacctcaagg tcaaggggca ggatggcaat 60
 gaggttttct tccgcatcaa gagatccaca cagctgaaga agctgatgaa cgcctactgc 120
 gaccgtcagt ctgtggatct caactccatt gctttccttt tcgatgggtcg taggctccgt 180
 ggtgagcaga cccctgatga gctggagatg gaggaaggcg acgagatcga cgccatgctt 240
 caccagaccg gaggggtgctt tcctcgccct tagaaggagc ttgcttgag cctggctggt 300
 ctatgtcgta tgctaccttt agaactagag taaaatgtaa gaagtgaaag aacttgtag 360
 gctatggttc tgtgccataa cctgaggggg tctgg 395

<210> 8786
 <211> 338
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-E11

<400> 8786

tagcgtccaa attcacggtc gacgggttcg accacccaac cgacccaac gatggatccg 60
ggtagcgagg aagcacgaat cggtcactgc agatcctgca tgggctgaaa ctttggaat 120
aaagtcaacc accaaggcaa ggttccccga atttaaaacc ttctttcccc cccccgtaat 180
tccactttga aattgtccat ccccaaatt tccccaaag gttcccccaa acttttttcc 240
ccgtaaaactc acacacccaa tgtgtgttaa atatcccctt tttccccgtg ttgccccgga 300
aattttctctc ccccaaattt ctctcacagg tttctcgt 338

<210> 8787

<211> 343

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-E2

<400> 8787

ctggagatgg ctgacactgt gtgctcgtcg tcgaatcgtt ctgtgctata tctggtgggc 60
gttgccggcg catgccaaact cgttttaagt ggccgatggc ggacgctgct tcagctctac 120
attcttggtt gcttggaagg ttgagccccg ataatcgctt tccactttct acccgccatc 180
tccgggctgc ccgggtgacc agtgtcgtgg agatggtggc tgccatgcag taagtcatgc 240
atcatgtcat aactagtga tgcacattgc atgtcttgaa taagacggaa gagtgtcttg 300
ggcctccgta tacaatgaga ttccctttca cacatgattt cca 343

<210> 8788

<211> 381

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-E4

<400> 8788

gattgtatcc ttacggacag cccaggacag caacggggtg cttaactcgt gggcgctcgaa 60
cctggagaag ctgctggacc tggaggagaa gagctgccac caaatacaca aggagacgat 120

gatccacaag gcggtgctga gagcctgaag tgaaccattt tgaattgaat gtggccttgt 180
 ttaggttgtg tgcgtagtag actttctcta tggatctgaa ttcactttca ctgtatgggt 240
 aaaactattc tctctgctca ggtgggcatc gcctgtttgc tttgggaact cgtgtgcgaa 300
 ccggtctcga aatactgtaa ccacagggaa tgacgaatgc tatttgctgt atttttctga 360
 acattatttg tattctttgg t 381

<210> 8789
 <211> 407
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-F1

<400> 8789

ggcggaaagca tgacagcacc ctcttgatca ggtcactgta aaccagggag ccaggggtga 60
 agttcatcgc ttcgtagctc gcgtagctga agccctcctc gggagtaacg tggattgtgg 120
 aggctgcagg gccgcagacg ccgttcatcg agtagccgca cgggtcgaag tcgaagtcgc 180
 agatctccat ctcggggatg atagcagaga tccccgagac cttggtcac tcttggccg 240
 aggagcagcc gccgtcggca gagttcttga agaacaccgc ggccttcccg gcgtccagcc 300
 cagtcatgca catctcgagc gtcacccatgg gttgctcagg ctctcagtg gcgtagtaga 360
 cgtgccacat cttcttgggc ctgaacgcat caccatcac atatgca 407

<210> 8790
 <211> 379
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-F10

<400> 8790

acgggcctaa gttgcatcgg gtaattccgc aacgggaaag ggaggtaacg ggagaaagca 60
 tgggatccag tacgtatggc cagatcagtg agtccgaacg agggtgcaat ctgtaccatc 120
 gattgatcgt gagtcagcgg tgagttaatg ctggtaacgt gatgcttcac gctatagggc 180
 tcctgtggtc gcatgtgtcg gcgtgtctat acgatgcac cttacatacc cttgatcac 240
 acttgatagc gcatctatag tgtgtatcaa ttgatatcat gaggcttgt tctacaatgt 300

ccagagtga aaaaggctga cataacacaa gatggtcacc ttgaaggaca tcacccttta 360
gacaactcgc ggggttacct 379

<210> 8791
<211> 439
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-F6

<400> 8791

tccggggccga cgggtacggc agcgagaatt atgtgtttcc atttactgtt atgaccccat 60
gaggtcacatg catcttgagc ttgaggtatg cgtaatgcgg cactgtattg aattttgcaa 120
atattgtccg tccgagcagt gcatgatagc cactacgaaa cgggacgatg tcgaagatta 180
actcttcgct tcagaagttg ttcggtgatc cgaagaccac ttccagtgtg attgagcctg 240
tgcaatgggc ctctacacct gggatgacgc ttttaaaggc ggttttgctg ggtttgatcc 300
tcgagggatc gataccatt tttcacactg tatgctgata aagcaggttc aggctgctgc 360
tgccgtccat aaggactcga gtgaggtcaa atccgtcaat gatggggctc aaagacagtg 420
cggcggatcc gccatgacg 439

<210> 8792
<211> 427
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-F8

<400> 8792

aattcccggg ccgacggggc atgaacagaa atgaggcctc cacagcttca agcgccctctt 60
ctaagtctct gtttgccgta gcaatggatt gttatgacca ctgtctcggt tggtcgggtcg 120
ttttaagata tttggttgtc ttgtaatcgg atatattatg cgctcgataa catctgggat 180
gaactaaact gagcctaaat aactggttgc tgtcaatttg cttggtatcg tcttatagtg 240
tggcaactga tgttggggga taatcacctc aactgaacgc tgccctttat aacaatgaat 300
agtctggttt tgctgatgca cttttgttat tgcattgccc cactgaacag gcattgcaat 360
gatgtgatat tatgatatgc ttgacacaaa acaaatcaat tcaaataaaa aaaaaagcg 420

gccgctc

427

<210> 8793
<211> 416
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-G1

<400> 8793

ggggctgaag tgatgggctg ggccgattct gctggggccac caggtgggtg ggcctcaggt 60
aagcgtcagg taaggtttct ctgctctgtc ttttacttat tgttttctat ttttttctgc 120
agctttgtgg ctttattaaa aatactaaat caatcccaaa aatcatgcaa ctgctcatga 180
ccactgtag aaatatattc tacagtaaac atttcagttt gggattattt gagcatttag 240
aatattttat agtattttaa tgcccaaatg caaataagta atgattttaa ttcaaagtcc 300
caaaaataaa tcctttttaa atgttcatta ttttttgttt ggatgaaaac ccttgccaaa 360
aatattaaac atctaaggag agcattttgg agcaatgaat gagaattaag gttttt 416

<210> 8794
<211> 393
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-G10

<400> 8794

gacggggcgt ctaactcaac attaagtagt tgagacacgt gttgagcgt aatttgctga 60
atcgtgcatg gcatgctacg tcgttgctgc tggacgtgta gtttagagaa agaaccatt 120
tcatatatag aatagatagt gaaacaaact agtaggaaaa aaagaaatgg caaagaagca 180
taccagtcta acaccagcgt caggtatttc accttgagac agcctatatt catacatgac 240
ccagtcggtc cttgtaccct tgggcgcctt gccagcgtga aacaccaggg tcctcttcat 300
cccaacagtg cgattttcat acaccacctg cctgtccttt ccagtagcct tccagtagcc 360
accttcggtt gaacggtag ctctatgcc aac 393

<210> 8795
<211> 413
<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-G11

<400> 8795

```
attcacgggt cgacgggtca tgtcaatggc taggaaactt aaccatcttt gattcaacga   60
gctagtcaag tagaggcata cttgtgacac tttgtttgtc tatgtattca cttttgtact  120
aagtttccgg ttaatacact tctagcatga ataataaaca taggccgcct ccacctctct  180
cccactaagg cccaataagg cccatacact ccccgggggg ttccggtaac ctcccggtac  240
tccggtaaat gcccgaaccc acccgggacc attccgatgt ccaaacatag ccatccaata  300
tatcgatctt tatgtctcga ccatttcgag actcctcgcc atgtccgtga tcacatccgg  360
gactctgaac aaccttcggg acatcaaaac acataaactc ataataccga ttg         413
```

<210> 8796

<211> 232

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-G12

<400> 8796

```
cttcggtgat ggttcgcttc attatccgga gccattacg acagtcatga ctttcatgca   60
ggggtagcgt acctgcatgc gtgcgcaagt tggtaggct atgcatggcg tcagttacct  120
ggctaagttg ttacgctacg tgcatgcac gcattggacat ggggtgcatgt ggttgagata  180
ttctaggcgg tgactgtccg tgtgtgtgca tggatatagt ttgctagact cc         232
```

<210> 8797

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-G4

<400> 8797

```
tgcggtcatg ttagtctcct cttcagagcc agttagcagt tgtggaacag gtggagcttt   60
actgagcatt tgctcatgga tctgtgtttg caacagttct ttgtgtcaaa gaaacagaat  120
ggggcgtatt taagaagttc ttcaaagtgt gttgggaatt ttacctcatc aattacactt  180
```

tggcgttctg gggagccgaa ttttggtggt gtttcacgtg atttgatagc gagtgtctgt 240
 ctatcttctt tctttagtgc cagtgaaccc aatgcgccac caggatttgt tggcatgaaa 300
 gcaatcaatg ctactagtgc tgtgcgtact gcaacacgaa tagtttggct cagatgtgta 360
 tacatcatat gaacaagaaa aaggaaaagg aaaagaagac acatataatt aatataacac 420
 ac 422

<210> 8798
 <211> 430
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-053-Q1-E1-G6
 <400> 8798

acgggaacac cagctgcaca cccgtataac cttgtaagta tctgtcctcc ggtacaacat 60
 caaggctgat tcctcttatt tgatcaacca ttgcgcgtgt caaaaatgca gagggggatg 120
 caaggagcac aaggcctgca catccaagca agtggttaaca tggacttgta catggaacat 180
 cccaagcgca atcaaagctg cagtgagcct gtacaacgag ctagcgtaag tccttgcatt 240
 tcatttaatt cgtactggca ttcgtgtatg atttgtgtgc actggctgat ccacgaattt 300
 aagttaccag gggcgaacat ttaacttaaa aaatacgaag gcacttgcac tctggaaatc 360
 aacataactt gagaaatgtg aagctacatg caccttgaga actagctaata gatccaaagt 420
 aattcggatt 430

<210> 8799
 <211> 429
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-053-Q1-E1-G8
 <400> 8799

cgggccgacg ggaaaggcac ccgcgggcaa gaagcccaag gccgagaagc ggctgccggc 60
 gggcaagaca ggggccaaagg agggcgaggc gaagacgagg ggccggaaga agggcagcaa 120
 ggccaagaag agcgtggaga cgtacaagat ctacatcttc aaggtgctga agcaggtgca 180
 cccggacatc ggcattctct ccaaggccat gtccatcatg aactccttca tcaacgacat 240

cttcgagaag ctcgccgggg agtcggccaa gctcgcccg tacaacaaga agccgaccat 300
 tacctcccg gagatccaga cctccgtccg cctcgctctc cccggcgagc tcgccaagca 360
 cgccgtctcc gagggcacca aggccgtcac caagtttacc tcctcttaga tcgcgtcgcc 420
 tgtatctag 429

<210> 8800
 <211> 356
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB104-053-Q1-E1-H10
 <400> 8800

acgggcatcg aaaagaccct gttattgtga gaattcttaa ttcaagagtt atagggaggg 60
 acttatgtca ccacanacag aaactaaagc aggtgttgga tttaaagctg gtgttaaaga 120
 ttataaattg acttactaca cccagagta tgaaactaag gatactgata tcttggcagc 180
 attccgagta agtcctcagc ctgggggttc gccgaagaa gcaggggctg cagtagctgc 240
 cgaatcttct actggtacat ggacaactgt ttggactgat ggacttacca gtcttgatcg 300
 ttacaaagga cgatgctatc acatcgagcc tgttgctggg gaaaaacacc aatgga 356

<210> 8801
 <211> 381
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-053-Q1-E1-H12
 <400> 8801

cgggcagcat aattaatgag gttttaacac cacaaaaacc agtaaataagg atggagaaca 60
 atcgtcgtcc gttttgggac atttttggta tgacttctgg aaggaaaatt gtgccagcac 120
 aacaagctgt ggatcaggat gcttctgctg ccaaggtgga tcaaatagac atggagtcaa 180
 atgacatccg ccgcttcgaa cagttgagac gtgagttgat tgagttagaa aggagagtgc 240
 agaagagtac agatggtgct aaaaaagagg agttccagga aacggagggt ccagatgaaa 300
 caatgagccc ttctgagtca gcacccctc tgtcagggcc tcctgggttca gtaatcaaga 360
 aagaaaatgt tattacaaaa t 381

<210> 8802
 <211> 326
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-H2

<400> 8802

tacgtttcac agggttcatg ccgagaagcg gctgccgtcg ggcaagacag cggccaagga 60
 gggcgaggcg aagacgaggg gccggaagaa gggcagcaag gccaagaaga gcgtggagac 120
 gtacaagatc tacatcttca aggtgctgaa gcaggtgcac ccggacatcg gcctctcttc 180
 caaggccatg tccatcatga actccttcat caacgacatc ttcgagaagc tcaccgggga 240
 gtcagccaag ctgccccgt acaacaagaa gccgataatt acctcgcgcg agattcagac 300
 ctccgtccgc ctgctctcc gcggcg 326

<210> 8803
 <211> 410
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-H3

<400> 8803

aatataagac tattattgga gccagtgcc tttctggatt ctgtgaggct gcttgcagtc 60
 tgccctttga ttacgtgaaa acacaaattc agaagatgca acctgatgcc actggcaagt 120
 acccatacac tgggtctttg gactgcgcca tgcaaactt gaagaccggt ggccattta 180
 agttctactc cggcttcctt gtatattgtg tcaggatcgc cccgcatgtc atgatgacgt 240
 ggctcttctt gaatcaaac cagaagtacc agaagaagat cggcatataa gatctccagt 300
 tggagacaag agtaccaatc cttgttcgac acatttaata actttccagc agctttgcac 360
 tcccgtgggt gtttttggtta cacagagttt taagcaattt ttaccgtagc 410

<210> 8804
 <211> 410
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-H4

<400> 8804

ttaatcacca catgatatgt gttttgcttg gagcgtcatt tttttttgct ttctgtttga 60
ataaaatacc aagatctgaa attcttaaatt gtttagagagt cttcatatag ttgcataatt 120
attcgactac tcattgatct tcacttatat ctttcggagt agtttggttg tgctctagt 180
cttcacttac atcttttttag agcacggcgg tggttttatc ttacagaaat agatgaacta 240
tcatgtgtca cttatattat ttgagagtc ctaaacagca tggtaatttg ctttggttat 300
gaatttagtc ctaatatgat gggcatccaa gagggatata ataaaaactt tcatataaag 360
tgcattgaat actatgagaa gtttgatact tgataattgt tttgagatat 410

<210> 8805

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-H6

<400> 8805

tgtaatcggc tggggggccga attggatatg gcccccatcg ccagtctcca tggggggttg 60
ctcccccatg tgtccagcag ctgaggtttc accctctggc gccgccctga cggcctcctg 120
catctctccc tggcctggga tccttcggga caacacctcg gtgtcatcca tggccctggg 180
agaggaggcc gccggaaggg acccgctgtc catcaccttc ggggccagcg aattccccga 240
agatgaggat cgctcaaagt cggaacgagc cggactacaa gtgcatgatt caacatgtta 300
aaactatgaa gtaaaaaggc tggatatatg aatgcgtcag ggtctttgag tactcatgat 360
tcggccaggg gcttatctcg ggggcgccgc tctgggctg 399

<210> 8806

<211> 284

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-053-Q1-E1-H8

<400> 8806

ccgggccgac ggggttagga agaagtgggg tggtggtgtc atgggctcca agtcgcaagc 60
gaagaccaag gccagggaaa ggcttatcgc aaaggaggct gccgagcgga tgaactaagt 120

ttagcattgt tgaaccatat ctattcctca tccttgagta gtgtgcaagc atactgtggc 180
 agtttggctc cagttttgaa agtcattttt gtttgtctga aacatcttgg aaagaacagt 240
 gtaagaatga agtattttctg tttaatgccca gttagtattt ttgt 284

<210> 8807
 <211> 189
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-053-Q1-E1-H9
 <400> 8807

ccagcgggtgg cagcactgga cggggcacgc ttggtccctt cggcctcctt gtgctcgctg 60
 atgccaggcg ccacggtggt gatatggagc ggaccggcgt ctacttctac gtcgcgagag 120
 gcctcaacgg cggcctgcgc cacacacttc tgtcatgacg agacacgctc atctcatgcc 180
 aacgatatt 189

<210> 8808
 <211> 390
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-054-Q1-E1-A11
 <400> 8808

ccaatataaa taaagaatga gttcattaca gtaccttgaa gtgggggttg gtttccttcc 60
 gcaaacggac cttacaattt tccggtaaat tttgggggtg tgaattttcc aagtttgggg 120
 taaaaatcca atggacaatg gaacaaggat tggcaaaagc caaaccttgg ggatgcccac 180
 ggcgccccaa aatgatcaaa ggacaccaa aacacaattc ttgggggagcc cccggaaggc 240
 atccccctctt tcgtcctcat caaccggtaa ctttacttgg agctaaattt taatttacca 300
 caagatatgt gttttgcttg gagcgtcact tcattttctt ttgctttgct tgagggttga 360
 ataaaatatac aagatctgaa attatcaaatt 390

<210> 8809
 <211> 408
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-A12

<400> 8809

tccggatatac aaaggtcgac cggacctcat gtcacgacat atcatctcat ctcacgtgca 60
caacaaactt tggattgttc tggacatgtc ttggttcatt atttgaaaat ttgattgcta 120
tggtgttggt tgaggctggg ttgagcagag gaaaagttgt tccttttttg atgatcatgg 180
tgatactgct gtcacgttgc ttctttagt gagtagtata cacatggacc tgataaaatg 240
gtccttgata tgatggaatt agtagcattt gtgtgggttt aactgttgt gcctaaacta 300
ctatgggtgc caagccagca tccattgcat caatcctcat gaattagtgg acaatgtata 360
gataaactct atggaacaat aatgatagt aatcagcaca atagttta 408

<210> 8810

<211> 414

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-054-Q1-E1-A3

<400> 8810

gatctatcca cctaggggca tgacatcatc tcctcaaatt caaagggtcc ggaaggcgga 60
aaaaatggta aattcaacaa agggcctgga attttggat tttgggttca acttgcaagt 120
aaccaaggta ctatcagtac ggattgcaga ctgcggggag gctatatata aattttcatt 180
cgctctgctt ttgaaattac tcctcgatgt tatgtgcaa ctgccaaccg tacgcctgaa 240
cgatgtttga ggcctctatt agaaaactgg aagttgtaac tttgtgactg gacaagtttg 300
tcgtaattag gatacaaagt tctttgttat gcaattctac cgttttttgt tgcaaaaaaa 360
aaaaaanaac taaaataaaa aataaaaaaa aaccaaaata tccaacacaa aaat 414

<210> 8811

<211> 243

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-A4

<400> 8811

ccacatccca actgcaggcc ttcgtacact attaatcttc aaccagaggt tatctcgtag 60
gatcaatgga aagatcctaa ggcagatacg acacgtggac tttcgacatg gatgaaaggt 120
gcatttcatg gaaacaaaag cgacatccaa gattcattac tccaaaatct gtattcaatt 180
ctcagcacgt cgcctaagtg cgacatgctg caactcacag gggacaaaaa tgtccttggt 240
gaa 243

<210> 8812
<211> 477
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-A5

<400> 8812

gggtcgaccg gatctatccc cctaggggca tgcgtagtag tactttgctt caagggctaa 60
taaaacttttg caataagtat atgagttctt tatgactaat gtgagtccat ggattatacg 120
cacttttacc tttccatcat tgctagcctc ttcggtagcg tgcattgccc tttctcacct 180
cgagagttgg tgcaaaacttc gccagtgcac ccaaaccg cgatagcaca tgctctatca 240
cacataagcc tcattatata ttcctcaaaa cagccaccat acctacctat catggcattt 300
ccatagccat tccgagatat attgccatgc aacttccatc atcataatat tcatgacttg 360
agcattcatt gtcataattgc tttgcatgat tgtaagatag ctagcatgat gttttcatgg 420
cttgtccatt ttttgatgac attgctacgc tagatcattg cacatcccgg tacaccg 477

<210> 8813
<211> 481
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-054-Q1-E1-A7

<400> 8813

cgggtcgacc ggtagctgg aaaaaccctc tgaagtttat tgcagtaaac ttgggtgaac 60
actgatgac aacacggatt ttactggcgc caaagagttt gtcttggtg attaactaag 120
gaaggactat gatcctggag gttttgtggc ataatggagc acaaactaac atagtgtgctt 180
tntagctcac attatgtgtc cagaatcaag atttgatga tgcactcaca tggagtaacc 240

acttgaggta aaacttggca aggcttagtg acttggccag ataaaggtgc tataaaaatt 300
tcataccaat tggttttacc aaaatggtac ttccttcaca actatcttca ctggccagaa 360
tcttgcaaga attctagagg agtattggct aggttaaatt gtgcaaatt tgggtggagag 420
aagttatfff gtaggagaat actctagtaa attgtcaggc aaaatgaanc aatataaaat 480
a 481

<210> 8814
<211> 368
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-A8

<400> 8814

cggggtcgacc ggggggagagt tgtacagcca aatcccaact gcaggccttc gtacactatt 60
aatcttcaac cagagggttat ctctacgat caatggaaag atcttaaggc agatacaaaa 120
ggtggacttt cgacatggat taaaggtgca tttcatggaa acaaaagcga catccaagat 180
tcattactcc aaaatctgta ttctattctc agcacgtcgc ctatgtggga caggctgcaa 240
ctcagagggg acaaaaatgt ccttggtgaa ttcattggaat ttaaaagcaa gaatgaagac 300
attccaatcc tgaaaaaagt taagaaatta aaagttaacc caattgtcaa ccaaaaatca 360
actccttt 368

<210> 8815
<211> 481
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-054-Q1-E1-A9

<400> 8815

tcggattccg ggtcggcccc ctanggtttc tagaatattg cggtatttat agagcaaaga 60
ggcgggtccg ggggcaccaa gtgggcacaa cccaccaagg cgcgcatggg cctcctagcg 120
cacctgggtg ggttgtgctc ccctcggagg accccgcgac gcgtcatcgt gaccattgg 180
gtgtcttctg ctccaaacaa atcgcggtac agtttcgttg tacttggacg ctgtttggta 240

gtgatttcct gcgatgtaaa aaacatgcag aaagcagcaa ctggcacttg gcactatgcc 300
aatagggttag taccaaataa tgatacaaaa tgattataaa acatgcaaga ttgataatat 360
aacagcatgg aacaatcaaa aattatagaa aagttggaga cgtatcagca tccccaaagct 420
taactcctac tcgtcctcga gtaggtaagt gataaaaaca gaacttttga tgtggaatga 480
t 481

<210> 8816
<211> 481
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-B1

<400> 8816

ccggtcagga aatctcggcc ggtccggtgc cgggactgga gttcaggaac tggtcgcggc 60
acgccggccg tggctgctgc atccatctcg atctccggtg ccgcctttgg gccaggccgc 120
cggtggcctc gccatcgtat cccctccga cgttggtcat gggatgcagt cagcgggtcca 180
gctgcaggag gaacaggatg gccacatggt acacaaatgc atttatgtat gtgacaccta 240
cccaaaaacc aggttggccc accttcggcc ccagacggc ccaggggaat tgacgtctag 300
ttgtcgtca ggctggtcac aatggacaag aacataagct agtaacttac acactttcct 360
agactatatt actacctcca tagtgggtag gaacatctat gtagtgtcat gcaaagatgt 420
atttattagg ttatagactc attgtttctt ggagtgtgtg atgttccggt aacttagcta 480
g 481

<210> 8817
<211> 260
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-B10

<400> 8817

gtaagtgtag aaatgactat ttgcagcgtg catatttttc acgctataca atgtcgagaa 60
tagacattgt tgcgtgtatt attatactta atacatgggt cactagttat attagggtgg 120
ttctgctaata gttattcttc tcgaactcgt gatcagtttt gactgataaa aatgtccagt 180

ggcttcgagg attcatcata ttattttatc atatgatatg ttttttttcc tattttttaca 240
 ttcgacagac tttgataatg 260

<210> 8818
 <211> 448
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-054-Q1-E1-B11
 <400> 8818

gagccccctc ctcagcccac gccgtcgtcc aactccaact ccaacgcggt ctccttcgcc 60
 aaccgcatga cgaactaccc ctctcgaggaa aacttgcaac ctccggcgcc gatattcgcc 120
 gacaaggccg ccgcgctcgc gtccctcttc gcgcgcctc ctccaccgcc tctcccgggtg 180
 ttcagcttct cggcggagcc caagatggag gaggcgatcg ggtcactgct gctcccgggg 240
 caggaggcgt cgcaggagcc agaggagccc acctgcacct ccaccgtcgc ggacatggcg 300
 ccgttcattgt cgctggacgc ggggatctcc gagctcggcg acgcgtcgcc ggccgattac 360
 tggaacggcg ggagctgctg gacggacgtc caggaccgtt ccgtctacct accctagttt 420
 ggcttagttc ctcatcacga ttgcctta 448

<210> 8819
 <211> 436
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB104-054-Q1-E1-B3
 <400> 8819

cctgactaat atggacatcc cgaccttcca tattgcatac ctgcaacca cgattttctc 60
 gagctttcaa gtactccctt catcctaaat tacttatcgc agaattggata taattttttt 120
 ccgaaaatat aagaaatgaa tgtatataaa actaaaagta cataaaaaaac gccacaaccc 180
 tgaggagcaa cgaatctact tttatcaagg attactactg actaactgct tcgtttttgta 240
 taatatcgtc atgtttacca ggaaagaagg gacgaaattt gcctgctccc ctgcgctgtg 300
 cccatccgtg ctcccgcgta cgtgggtttaa tttgattgaa acaaaataag gcccgccccc 360
 acctcattaa aatcaggggg ggagataatt agattagaaa aaaaaaanaa aaactaaaaa 420

aaaaaaaaagc ggccgc

436

<210> 8820
<211> 435
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-054-Q1-E1-B6

<400> 8820

cggtcaggcc attccgggtc gaccggaatg gagcaaagat tggagctgta caatcgagtt 60
cctcccaatg gattggtgct ttatactgga gttttactat ccatagaacg catggagttg 120
gccggcagcg gcagagtatg ggagcagtgg tggcggcgtg gcatatcagc tctcctagag 180
tgagctagtt gcagtagagg ctaaggaaat gcagtagtga acaccaaaga aatagatacg 240
aaacgtccgc ccgcccgcgc caccgccgaa tctggcagca agcgdaccgc tgcggccgag 300
ttgcacaacc tctccgagaa ggcggtgtcn cgcttcnccg tcgttaacca cttttccctg 360
agtttcgccc cgcttttcta ctgtttcttt ctgcacctat tttcccggtc gctcattgct 420
tgcttgcttg attgg 435

<210> 8821
<211> 456
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-B7

<400> 8821

gggaagaaga aggaggcgga gggatggggc gcgggaagat cgagatcaag aggatcgaga 60
accagggcaa ccgccaggtg accttctcca agcgcaagaa cgggatcctc aagaaggcca 120
aggagatcag cgtgctctgc gacgccgagg tcggcgctcgt cgtcttctcc agcgccggca 180
agctctacga cttctgctcc ccaggacct cgctatcaag aatcttgag aagtaccaga 240
ccaactccgg gaagatactg tgggatgaga aacacaagag cctcagtgcg gagattgatc 300
gaatcaagaa agagaatgat aacatgcaga tcgagctcag acacttgaaa ggcgaagata 360
tgaactcgct gcagcccaaa gagctgatca tgattgagga agcacttgat aatgggctga 420

caagtctgca tgaaaaacag atggagcact atgaca

456

<210> 8822

<211> 237

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-B8

<400> 8822

acggtcaggc tagtccgggt cgacgaggca cgcgggagg cattcatata gagtcatacc 60

ttgggtctaac tatcaattgg aaatcctgga ttggtaatct atataaattg taagattcac 120

cataataaaa caatggccca atgtggagaa gagattatgg acaataagac ttccacacat 180

ctcgagatgg catccgactt tataaaaata aaagaggcca aagatgctca gcagctc 237

<210> 8823

<211> 482

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-C1

<400> 8823

tcggaaatca agggtcgacc ggatcgcggt tgctgtgagc aaactgagcc ggtttgtttc 60

caaaccgggt gatgtacatt ggcatgctgt tgagagaaag gtactatgaa ctatggactt 120

cactataccg gatacccgtc ggtacttgaa gggatatagt atgcgaattg gatctctgat 180

gctgatgaga tgaaggccac aactgggtat atgtttactc ttggagggtg cgctgtttcc 240

tggaagtctt gcaagcaagc gatcttaacg agatcgacaa tggaagcaga attaacggca 300

ttagacacat ctggtgttga agcgagatgg cttecgagatc ttttgatgga cttgccattg 360

gttgataaac cggttccggc tatccttatg aactgtgaca atcagactgt catcaccaag 420

gtgaagagtt caaaggacaa catgaaatcc accaaacaca taagaatgag attaaaagct 480

gt 482

<210> 8824

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-C11

<400> 8824

acagacagaa atacaccgga caggggtgacg acttgatcta cactccaag gggcatgtc 60
tgaacccagg gcaaagggac tggacaaggt accagccttg ggaacaaaag aaagaagagg 120
ccacctgac tgtatgaatg gtacctgata atcctcttct atgtttcgca tttggtttgg 180
tgtcgcggtat ctaaaaccgc cagtcacctt ggtttcatgg actggacctg aataatgtac 240
tctatctgat actgaatacc tgccactgaa caattttaat ctctgtggat gtggcaattg 300
agaaactggc gattcgggtcg tcggtgtttg cattgaagag tttctttttt ctactgatgt 360
caatggtgcg tggatgttga gatgctgaaa ggagataata ttgttttgta aattccgtgg 420
tgttgcaaca tgcccgtgtt cttt 444

<210> 8825

<211> 349

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-C12

<400> 8825

ggcgggtgggg tcaatcccgg aggcgcagct gaactacccg gcgatactgg tgcaactctc 60
caagaagccg ttcaaggcaa accggacggt gacaaacgta gggccggcaa attcaatgta 120
cactgctcac ctggacgtgc ccaattggct caaggtgaag gtgcagccaa aggcgctgga 180
gttcacgtcg gcgatggaga agaagacatt cacggtgacc gtgagcagca agggaggtga 240
cgccgacgcc aacgccgggc agctggccga ggggagccta cgctgggtgt ctgaagatca 300
cgtggtgctg agcccgatca tcgccgacgc cagcgtttgt cccacatga 349

<210> 8826

<211> 414

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-054-Q1-E1-C3

<400> 8826

catccttact gatggcgacg aaacagagga actctcaatg aaagcaccaa tgttggtgtc 60

aaaaccggcg gatctcaagt acgggggtcnc gaactgtgcg tctaagccag atggtaacag 120
 gaggcaaggg acatgaagtt ttacccaggt tcggggccctc tcgatggagg taaaacccta 180
 cgtcctgctt gattaatatt gatgatatgg gtagtacaag agtagatcta ccatgagatc 240
 gangangcta aaccctagaa gctagcctat ggtatgattg ttgatgtgta tgttgctcta 300
 cggactaaaa ccctccggtt tatatagaca ccggataggg ttagggttac atagagttgg 360
 ttacaatggt aggagatctt catatccgta tcgccaagct tgccttccac gccca 414

<210> 8827

<211> 470

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-C7

<400> 8827

tacggtcagg tactccgggt cgacgcggag tccttggttg atttatagaa ttctcattgc 60
 acttcaactta aatcttttga gtgtggcttt atagaatgct tcatgtgctt cacttatatc 120
 atttgaagtt ggattgcttg tttctcttta catagaaacc tgccatttgt agaatgctct 180
 tttgcttcac ttatatattgt taaagtgtgg gcatatcttt tgtagaaata attgaactct 240
 cttgcttcac ttatatcttt ttagagagat gacaggaatt ggtcattcac atggttagtc 300
 ataaaatcct acataaactt gtaaactcgt gaatatgata tgtttgattc cttgcaatag 360
 ttttgcgata taaaggaggt gatattagag tcatgctagt gggcggttgt ggattgtaga 420
 gacacttggt ttgaggtttg caagtcccgt agcatgcacg tatggtaacc 470

<210> 8828

<211> 369

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-054-Q1-E1-C8

<400> 8828

cggtcaggta tnccgggtcg accgggatga cattgtaatc cagcaggact taagtccact 60
 ttggtcggta catctcaaag gcagggttaa tgggtgccgtc aaaacctgtg gtgagatttt 120

caatatgttt gatacgtatc tcaacttctc aaaccctctt atcgccaaga aatttgaccg 180
acgtgcatgt ggggtggcat atggcatgaa catgtttgat ttgtctgagt ggagaacgca 240
gaatattact gctgtgtatc actactggca agaacagaat gaacatagac tgttatggaa 300
gttangaaca ctccctgctg gcttggcgac attctggaac ancacttccc tctcgatcgc 360
tcatggcat 369

<210> 8829
<211> 449
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-D10

<400> 8829

tcggaatcc aaggtcgacc ggctgggtat ttgcagatat ttgaactatt tagtcgccat 60
aatattctct tgggctcgcc tggaacctgc gtagaccaag tacaattttg gtcttaagtt 120
gtagaagtga agatgttaaa tattttctaa tgttcttacc aaaggaatgt gtaaataaat 180
catatatata tatatagctt gttcgcacga tagagcggac gacttaggtg catagttgaa 240
aatgtgcgta aaattctata caagcataca catcttttac ggtttggtat cgtgttaa 300
catagcattc ctttttatga tgattgtgca tgtaccttgg gtatgtattc tgcaaccttg 360
acaaccggcc tccactcttc tgggggagga gctcgaacaa gaatcaagaa ggagccaaag 420
gagtttacac aagagttaaa gcatacaaa 449

<210> 8830
<211> 328
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-D11

<400> 8830

gtcggccggg gatcggcggc aaacaacagc ttcgaggccg aggtgaggac gcttggcaag 60
attcggcaca agaacatcgt caagctcctg tgctgctgca cgcacaatga ctccaagatg 120
ctggtgtacg agtacatgcc caacggcagc ctcggggacg tgctgcatag caggaaggcc 180
ggctgctggt attggccgac gcggtacaag attgcactgg acgcagccga ggggctgtcc 240

tacctgcacc aggactgcgt cccggcgatc gtccacaggg atgtcaagtc caacaacatc 300
ctcttgatg cagagttcag cgcttgcg 328

<210> 8831
<211> 413
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-D12

<400> 8831

tcggatatcc agggtcggcc ggtcctccac ggcgtagtcc atttgccgcg acctcgccgc 60
cgtcagatcc gaccctcta gtactagttt agcgtagtat gtagtataac tatgcttgta 120
gttttttgat catgtgatga actatgtagt atgtgatgaa ctatatttgt gcaatttctc 180
ccgcgaaagt gttttttcaa attatgcagg tttagatacg ggttctgttc ggccgcgcta 240
gttttcgacc cgcaaacgcg atcttcgtgg aaccgcaa at gcgttttgcg ggtcaaattt 300
ttgcagggtc tgctagagtt gctctaagca cacacatttt tgcttccttg atagatattc 360
tggtttttcg caaataccta tttcccaacc taatcaagaa aagaccactt tta 413

<210> 8832
<211> 184
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-D2

<400> 8832

acatggcaag tacaacttcg actgcttcaa ccacagaaag gcaatgctga tccgccggtt 60
ccgttgccaa gccaacgcaa ggtaaccaac ctaaaaggga aacaaacaaa ggatcctgaa 120
gggcctcaac caaggcaact tccttgccct gatccttgcg cccctggggt tcccaacgga 180
aaaa 184

<210> 8833
<211> 341
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-D3

<400> 8833

ccctgtcctg ctaaacccaa gctctaattg ggttgacttg gaagtatgcc attctttcac 60
tgtgaggatc ttcttttagt ctgtatgcac cccttgccca ctaatgacat gaccaggtta 120
ttctatctgt ggttgagcaa atgaacattt attcaacttc acatatagtt gattctgctt 180
cagaagggtca aatacttgct gcaaattgggt gacatgatct tgcaaggatt tgctgtagat 240
taagatgtca tcaacatacc ctogttgtaa cttccttctt catttaagcc acaattttgt 300
ccacagcatt ctggacggtt ggtggtgcac ttgtgagccc a 341

<210> 8834

<211> 482

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-D5

<400> 8834

acggtcaggc acgtccgggt cgaccggaat cccatgagca tgaggaaagg aaagctttgt 60
gctgcattgg tgttttaagt ctttgagcag tcaaattgagc taagctcctg tgaatgaaac 120
gcctgtcctg ctaagcccaa actctaattg gcttgacttg gaagtaggcc actctttcac 180
tgtgaggatc ttcttttagt ctgtagccac cccttgccca ctaatgacat gaccaggtta 240
ttctatctgt ggttgagcaa atgaacattt attcaacttc acatatagtt gattctgctt 300
cagaagggtca aatacttgct gcaaattgggt gacatgatct tgcaaggatt tgctgtagat 360
taagatgtca tcaacaaaaa caagtacaca aacctagtc agctcagcca gaattgtgtt 420
catagcactc tggaggggtg gtggtgcatt tgtgagccca aatatcctaa aattcatagt 480
ga 482

<210> 8835

<211> 488

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-D7

<400> 8835

cggtcaggta taccgggtcg accagcacca tccaagacag tgttcatgcc gaccagtac 60

ataccgttaa ttagttgag actgacggg attggatcgc agtcaagggg ttgatgctc 120
gccaccctac gatcgttatg ctgctgaca tgccatttct gaagatcagg caagcatcag 180
caagcaagga gctggcttaa aaagcttcgg cctgagggct ttgagtaaac ggtacagccc 240
cgacaagcac gcggcgagcg gcatggtact gagattgtcc acacgtgaaa caatgagctt 300
gattacctct gtggggagcg aattccaacc actctttcgg ccacgctgc tcggttctgc 360
cattgttagt gcttgggttt cagacgaggg gggaggcgcc ttagcgggga tggaagattg 420
gacgagatta tgtgctaca aagatggaga agcgaatatg tgctgcagga agtggacaag 480
tgatgatg 488

<210> 8836
<211> 418
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-054-Q1-E1-D9
<400> 8836

ggtcgaccgg gcccgagcac aaatgacatt ctggacgcgc acattgcatg caaaagcgg 60
ggttaccgcg tgcaggggtg cacacagtgg cacacggccg gccaaacaat gtctgggggc 120
ttgtccttcc tggggaggtt gcatctgatg tggtagattg gttaaaagt acacggttaa 180
atggcagtta acacctgaag tttattgcag taaactttga ggagcactgg cgatccacag 240
gagagggatt ggaacaatg gagttgtctg gtagatttag ggtagaagg actttcatcc 300
tggtaat tttt gagaagaatt ggaccactaa ttaatatagt tgctttacaa ctaagtaac 360
cgtccagaa tgaagatcat gatgatgctc tcaaatggag aagccacttg agctaaac 418

<210> 8837
<211> 478
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-054-Q1-E1-E1
<400> 8837

ggtcgacctc cgcgagcag gtgcaccgca tgatggcaga aatcgacacc gacggtaacg 60
gcttcatcga cttcagcgag ttcattctct tctgcaacgc caaccgggg ctcatgaagg 120

acgtcgccaa ggtcttctga atcagttcat ttcacctcag ccgtccgttc caggagccga 180
tccatctacg tacggcttcg tatatcaatt tcatgcaact acctactcgg gtcccgatcc 240
agcctcagct tcacctgagg cgggccctaa atttgtttga tcgattcttt tgctactagt 300
agtaactagt gatgatcact gttgcatcat ttatttattt attttatata tcatcacaag 360
tttctgtga ttcttttctt tctatacctt tttgtcgatc gtcggctcca gctcgatcga 420
acgatccatg ctgctaattg tttgtgtacg ggtgattaag taacttgtgc acttgtgc 478

<210> 8838
<211> 259
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-E10

<400> 8838
cttacccccg gtatgtagtt cgggcaagcc ctgaaccgga acgggcgttg gctgcaaaat 60
tttttgggcg caaaattaac aaaagggtgg ttttaattcct aagttcctta agttttccaa 120
ccttgaccga tgtttgggcc caaaatgtcc ggaattttaa gcctttttgt gttacctttt 180
cctgccgtgg ttaaaatttt tttccctcta ggtaatgaca tgagcaattt ttaagaaaaa 240
tttataccca taccaattt 259

<210> 8839
<211> 405
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-E12

<400> 8839
gtcgaccggg caggatgagg aagggtggc ggccgaggcg aatgaagacg aggcggcgtc 60
gtccaacgag aaggacatca aggagatcaa cgtggaggat gacggatttg tcgccatcgc 120
ggatgcctcc gtgggcgtat tcaccaagga ggatgacatt atcatctcgg ccgatgctcc 180
ggcgatagag aaggacaaa tcgacacgtt cgtgcctgct ccggcagcca aggccaacga 240
ggatgccggt gccaccttcc tggctgcccc ggtggccggt gatgatggca gtgcctcctt 300
cgttgctgcg ccggcggcca aggaggacga acttgtatcc atctcgtctg ctccgttggc 360

gggggagatt gagggatatca ccatggcggc tgctccggtc gctga

405

<210> 8840

<211> 353

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-E2

<400> 8840

cccaattatc ccccaaacct tgattaaggt tccccaaat aaggcccaa aaatggtgcc 60
aaaatcccaa tcccgccaga atggctaagg ggttaatcct ggggccgga tgcaaaaagg 120
gaaaagccaa gaccaatggt tcttggaca atccaatgac caaaggaaca aagcctcaag 180
gtgtctaaaa aataattcca aaattggtta aatttgaagc ctaaaccaag gaatttaacg 240
ggcccaacct tggggaaaat tttgaagaaa atgtaaaagg caattcccca accttcgaat 300
ctcaatccac aaaaccttga caatgaaaac ccaaccagc ttccaaaaaa caa 353

<210> 8841

<211> 487

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-E4

<400> 8841

gtcggaaaatc agggtcgacc gggatcagcg cctcaacgtc ggaggagaac atgcgctact 60
tcaatgtcat ggcccttggc cccgcgcagt cgccctacga atgtggagtc gtcaagcttg 120
aacttttctt acccgaggaa tatccgatgg ctgtctctaa agttagggtt ctcacaaaaa 180
tataccatcc catcaatgac aagcttggtta caatatgcct cgacatccta aaggacaagt 240
ggagtccagc tcttcagata cgcactgttc ttcttagcat tcaggcactg ctgagcgccc 300
caaaccaga tgattccctc tcagaaaacg tcgcaaaaca ctggaaatcc aatgaagctg 360
aaactgttga gacagcgaag gaatggactc gtatctatgc cagtggcgca tgacaagcta 420
acgctgtcat ggatgtaata acaccgtgtc atagttgggc ctaatctaaa accatttcct 480
tgataaa 487

<210> 8842

<211> 447
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-054-Q1-E1-E5

 <400> 8842

```

cggtcaggaa taccgggtcg accgggagtt cattacaata cccaagtggg gatttatttt 60
cttgtactaa cgagcttacg agttttctat taagttttgt gttgtgaagt tttcaagttt 120
tgggtaaaga ttcgatggac tatggaataa ggagtggcga gagcctaagc ttggggatgc 180
ccaaggaacc ccaaggtaat attcaaggat gaccaagagc ctaagcttgg ggatgccccg 240
gatggcatcc cctctttcgt cttcgttcat cggtaaacttt acttggagct atatttttat 300
tcaccacatg atatgtgttt tgcttgagc gtcattttat tttgttttgt tttgcttgct 360
gtttgaataa agtatcaaga tctgaaatta ttaaatggga gagtcttcac atagttgcat 420
aattattcga ctactcatcg atcttca 447
  
```

<210> 8843
 <211> 321
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-054-Q1-E1-E6

 <400> 8843

```

gggtcgaccg ggtatgtcgt gaaaactaca tatttctgct gaagaaacta cataatagtt 60
ttactgatcg aggaggaaat tacttggtt caatattggg aatggtaggg agagaaagaa 120
tatgccattc tctctagctg gaaaggacac tataccatac tggatgttat aaaaaaattt 180
ggtcatgccc ccggaaacat tgaccacctc aacgttgact ctatttccgt tacaatcaat 240
caataactgg tataatacca tgaccctgg cctgcttctt ggcatatttg tggttgttca 300
aacctcaaca ataaaggttt g 321
  
```

<210> 8844
 <211> 483
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-054-Q1-E1-E7

<400> 8844

cggtcaggta ctccgggtcg acgcggttat actttcattg tcaacataac aaccaagaga 60
tggcgatatc ttccatgcta cacacattat aggcgggtcc caaacagaat ggtaaagttt 120
atactcccc tccaccaaca agcatcaatc catggcttac tcgaaacaac gagtgcctcc 180
aacaagcaac agtcccaggg ggagttttgt ttgcaattat tttgatttag tttgcataaa 240
gcatgggact gcgcatcccg gtgaccagtc attttctcat gagtgaggag tggagtccac 300
tcctcttgag aataacccgc ctaacatgga agataagggc agccctagtt gatacatgag 360
ctattcgagc atacaaaaca gaatgtttat ttgaaggttt agagtttggc acatgcaaat 420
tttacttgga acggcaggta gataccgcat ataggaaggt atagtggact catatggaat 480
aac 483

<210> 8845

<211> 480

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-054-Q1-E1-E8

<400> 8845

acggtcagga anaccgggtc gaccgggtcg cagctcgagg cccgcgccgt cggcctcaag 60
gtcgtctgcc ccactctgaa gtctcaactg gccaacgaga agcagttgat tgatcactat 120
ggatcaaagc atcccaagga gaaacctcca ggtcgatcaa atgcagagtg actgatgcga 180
ggcggaagca tgagctatac tttgactgtt tctgagggtt tttcaatctg ctccacactc 240
ggacgacttg agctcagcg ttaccctatg taatgcatgc aattcccctt gttccaagca 300
agaaccttga agaacacaga ctgccttaa atgaataacc tggccaactg gccacaaacc 360
ttcaaactgg aagtgttaca atccttggat aagagaatgc taaactttcc caataaggca 420
atctcctggg gcgtgaattg cgggtctaaaa agctcaaaaa tgaatgtgtt tttcgcttac 480

<210> 8846

<211> 464

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-F10

<400> 8846

gccgtgagta atagtgcaga gaattcacca gaaaaataat tcaattaaat tcttaccaga 60
attagaatgc cccaagaat ttttaagttaa caaaatgggg aaaaaaaaaac attacaaccg 120
tccggtgtac ggtcacaaag cacaacagcc aaagtctgct cacttgcgta ctgacatgac 180
atgttggatc catccaacca agtgatatgg cgttatctac cgtgctggct agctagtgc 240
ccactgaccg ctgaagtact gaacccatat acaccacgat agtattctgg tcccatatgc 300
tcttgagtc cctacgtcgc gtggcttcta gtatttcacg atgcatgata aatacttcct 360
ccatcctaaa attattgtct tagattttatc tagatacaga tgtacctaat actaaaatgt 420
aatttgatac atccgtatct aaacaaatct aagacagaaa tttt 464

<210> 8847

<211> 179

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-F12

<400> 8847

gtcggccggg acgcgctcac taagtacaag gcgaggaggc ggttgcaaac ccggctcctt 60
aacaaggtcc ccaacttcat tggcaattgc ccggaatggc aacaccatgg taattgaacc 120
cttctggcaa aacaaccggt tacccaatcc aatggccgga cctccggct tttcataaa 179

<210> 8848

<211> 482

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-054-Q1-E1-F5

<400> 8848

ggtcaggtat nccgggtcga cgcggagctt aatcttcctt ctgctaata attgattagt 60
tctcagtcaa acaatgaggc aaatgttagt gcgcgcacac atcaatttcc taactaaaat 120
cagaaggctg tgagccattt gatttatttt aattgcatgc tttttccagg gaaatctgga 180
aagcacacag gaagtgcagg tgaacccaac gagcttatct caatacaggg acatccagag 240

aaagattggt gagtttatca gaaagagata ccatattctg gaaaaatgct tggacattga 300
 atatgccgtg ataaaaacaa atactcctgt tcctgatgat cttactgaac aaaatgttcc 360
 tatgggacat agcccagctg ttccagatat cagtgaagtg ttgagagaac ttccccctct 420
 tgtaccaatt tctgccaaag aagtggcttc tgatggctca actgaccang cacaccttcc 480
 cc 482

<210> 8849
 <211> 366
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-F6

<400> 8849

cggtcgacc ggggatgaaa gataatggcc attgatgtct ccattaccat catatggata 60
 tggaagagag cgcaaggac ctcgatatgg gagcctcata catgggtcaag acctgaagga 120
 tgtgattata accggtcata atggcactat aaatgggcaa ggccaaagt ggtggatcaa 180
 atttcgaag aaactcctca atcacaccag gggtcctctt gttcagctca tgcggtcaag 240
 taacattact atttctaaca tcacattacg tgattctccc ttctggacac ttcattata 300
 tgactgcaag gatgtcaaag tctcggaac tactattctg gctccaattg ctggggctcc 360
 aaacac 366

<210> 8850
 <211> 429
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-F7

<400> 8850

cggtcaggta taccgggtcg accggggcgg tacgaagggt cagaattttc agaagataca 60
 ttattgcta aagttaaaat ggaaatagtc gtgtgcaagg agcagggtga gccagtaatt 120
 gacaaaataa ttgagaaggc cagaactgga gaaattggtg atgggaagat attcttgata 180
 cccgtcgcgg atgttgtaag ggtacgcacc ggcgaacgcg gagtgcacgc ggagaggatg 240
 atcggcggtc tgtcagacaa actgcctccg gtgatcacia tctcatgagt agagcttgac 300

tgctcttgcct gcctgtaact gtaagcgcat ccctcaggct gggtgcttgc gcccggtgtgt 360
gtcttgacct ttggggaata atgtgtatgt aactttgcgt gttggcacga ataaattggc 420
accagcatc 429

<210> 8851
<211> 289
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-F8

<400> 8851

tcgacgggga aatcgtcagc ttaggcttgg aactgtaaa agggaaacatc atgctgcgca 60
aaatctatct tagggaaagc ccgatgtgtt gacatatatc atagagctca ctatcttctgt 120
gtgttttccc catcattcag ttgcctcgtg gtgactgacg acgtagctgc ataaatatct 180
aaaagccgag gtagcagtgg gtctctctca ctgatcaaat ttgaggcgtt gagcatggaa 240
acatctgtgt tatgttcttc cttgggttaa ttaacctggt tttcctccg 289

<210> 8852
<211> 425
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-F9

<400> 8852

gtcgaccggg agagtgagga caaccggatg atgaccacgg gcctgcacac cgtccgcgac 60
atcttctgcg tcgcctgcgg agccatcctc ggctggaaat acgtgtctgc atttgacaag 120
gatcagaggt ataaggaggg caagttcatc ctggagaggt gcaagatcca ttcgggcgga 180
ggcggccctc ccgaccgcat ccagctgtgg gctgagcatg acgctcgcat aagttccagc 240
gaggatgacg accagggcgc cgtgtgacct tgcaagacaa tgcaagatca gttcattagg 300
caggcagaca tgacatgact gtaaatatta gtgttaatca gcgtcgttcc gttccctggc 360
actgcaaadc atgtagctgc tcgctagatg aagaacctg aatgcttaac tatctatgca 420
tatgc 425

<210> 8853

<211> 396
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-G1

<400> 8853

gtcgaggcgg ccttaccgca aggggctccg tcacaaccta tacttaccgc gtggacacgg 60
 acggctgcac acacttaaac tcgattgggt ggaagagatt cctcgatggc aagaatcttc 120
 gtgttgga ggtcatccta attactatca ggaacaccca ccgcccaggc ttgaggatga 180
 tgatcgtatt tgatatcatc tagaactata tatgtgtgtg tggctatatc atctagaact 240
 acatatgatg atcgtcgtcg atatcatcta gaactacata tgatgatcgc cgtcgatatg 300
 accttgact gcttgaggat gcatgttgac tatacatgaa attgttatct agtactccct 360
 tcgttccaaa ttaatcgtcg tgggttggac taaaac 396

<210> 8854
 <211> 423
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-G10

<400> 8854

ttatagaaaa aatagatctc tcaggcttaa cttaaataat ttcaagagcc taaaaacaag 60
 ggaaattggc ttaaaaccca agaaggctgg gaatacaaga ttaaaaataa aactttctaa 120
 tgagtgtgtt gaatactatg ataagtttga tacttgataa ttgttttgag atataaagat 180
 ggtgatatta aagtcatgct agttgagtag ttgtgaattt gagaaatact tgtgttgaag 240
 cttgtgattc ccgtagcatg cacgtatggt gaaccattat gtgatgaagt cggagcatga 300
 tttatttatt gattgtcttc cttatgagtg gcggtcgggg acgagcgatg gtcctttcct 360
 aacaatctat ccccttagga gcatgcgcgt aatactttgc tttgataacc tggaaaattt 420
 tgc 423

<210> 8855
 <211> 385
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-G12

<400> 8855

tacggctgag agaagatggc ctgcatcagg ggtcatcttt gaccccttat ctttttgcac 60
tgattacggt tgaggtcaca taggttatac aagaatatat cacatgggtgt atgctctttg 120
cggatgattt ggtgctactt gacgatagtc ggacggggta aataggaagt tagagttatg 180
gagacaaacc ttggagtcga aagggttttag gcttagtaga actaaaaccg agtacatgat 240
gtgcgggtttt agtactacta cgtgtgagga ggaggttatc cttgatggcc aagtgggtacc 300
tcagaaggac acctttcggg atttgaggtc aatgctgcac gaggatgggg gtattgatga 360
agatgtgaac catcaaatca aatcc 385

<210> 8856

<211> 285

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-054-Q1-E1-G2

<400> 8856

ctgcaagatg gaccatgggt gtatccggac aattcaattt gtgttaaaac acacaagggtg 60
gcggcctaaa taacctgaca tattgccagg aatattgggt aaattaggaa atggaagtga 120
tttcagcgac aacaacatgg aattttggta atgatgggtg acaattcctg ggcaatggaa 180
aacgcgacgc agggtcangg gcttgtgccc ttcggtggga aaacgagtaa catgttggtc 240
gggctggagt tcgtgatggc caatggttct ctacaatggg gactg 285

<210> 8857

<211> 289

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-G3

<400> 8857

gtcggccggg caaaaaata gtatcaatgt gttcatggc caagtgacgg ttggcatact 60
cgtaatgcaa gaatgtgccg gtggctctcc gtttgaact cctccaaatt tgaaccgggc 120
ctccgggtcc tcctcaaggg agttgcgtcc aatgacaaaa atcccctggt gctattaaat 180

atccgttcct ggggaaatct ctctatccct ctcccgttac attgtgtgcc cttgggtttc 240
 ttaaagctga tgataaagtc tttctcctc agacaaaatg aactgtacc 289

<210> 8858
 <211> 489
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-054-Q1-E1-G5

<400> 8858

ccggtcaggc cattccgggt cgaccggcta gcggtggcga tagggttcgt gcgagagtgg 60
 aagaagggat aatgactatg gtgaggcgtg tatttatagg gacagggatg gtacagcgtt 120
 attacacagg tgcccctggt gattcacatc tgaaggacac ctggccatca tgcaacatat 180
 aggaggttgt tccacgttcc cagcgacgcc tggattgtcg ggtggtcgtt cccacttctt 240
 cgggtttcag gtgaaggaat tagcattgaa agcggactta atgtttgtct ctgtatcttc 300
 tgctgacaag gacgcagaga agacattcaa cagtttcaag agaatgcata tgatttggag 360
 agatagagtt tgagatagaa agcatagaga ggttanggtc cgatcacatt cacttagttc 420
 anaagattca acangaagac atagctataa gtgaatgctg taaaggacag aacactagta 480
 tatatatat 489

<210> 8859
 <211> 452
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-G6

<400> 8859

cgggtcgacc gattctacga cccaatgctg tcgttcatcg acgtggccgt caacgaaggc 60
 ttcacacccc aggaggcgag gcagatcatc atctcggccc caacagccaa ggagctagtg 120
 atgaagctgg aggagtacgt ccccgagtat gaggtcggcc tggctctggga tgaccagaac 180
 cagatgccaa gcaacagcct ggtcccagag ccgctggaga caccgcgat cacttcatcc 240
 taatcgatgt gcctcgcta catctcagtt agggttctaa caacagtgtc gagatagcgg 300

cgccacatat atttattctc tcctagataa gtccctagcca actgaagggc gacgaggggg 360
cacattatag catgtgtgct tgttttggtg gcgtcgatcg accgatctct tgtgtcaccg 420
ctgatgattg ttttgggtgg catgattata tt 452

<210> 8860
<211> 474
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-054-Q1-E1-G7
<400> 8860

cggtcagggt ttccgggtcg accggetagt gcttcacata tatcttttta taagcacggt 60
ggtgggtttta.ttttatagaa attattgata tctcatgctt cacttatatc attttgagag 120
tcttttagaa catcatggta atttgctttg gctataaaat tagcccta atgataggca 180
tccaagatgg gtataataaa aaatttcata taaagtgc attaatactat gagaagtttg 240
atacttgatg attgttttga gatatgaaga tggtaaatatt agagtcatgc tagttgagta 300
gttgtgaatt tgagagatac ttgtgttaaa atttgtgatt cccgtagcat gcacgtatgg 360
cgaaccgtta tgttattaag ttggagcatg aattaattaa tgattggctt ccttatgagt 420
ggctgtccgg gaacagcgat ggtatttcta ccaatctatc ctccctaggag catg 474

<210> 8861
<211> 281
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-054-Q1-E1-G8
<400> 8861

ccgcaagaaa gcaacgagcg cgctttccta tttgggggtca agagtggcgc tgatggtgaa 60
tgtaccacca gtgccatcct ccttggcgga caccttctta gtcccagggt gagctgccat 120
tgcttcttta cacttgccgg tggagctcga tgggtgcgtcc tcgacggtag cgcaacactc 180
caaagaggtg cacttgccgg agtaggcata agagctcttg ccggacttgg tcttcttcgt 240
ccctccggga gcttcaacgg caagtgtctt gcgctctgct g 281

<210> 8862

<211> 333
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-054-Q1-E1-G9

 <400> 8862

 gtcggccggg agcgcgaagc taaagcggag ctccgccggc gagcagaagt gggggctgtt 60
 catcgcgacc aagtgatctg gccgctgagc agcgacgcca tggacgcgat gattcgggag 120
 cagagcagct tctgttaaga aataaataaa gaggatcggg gctcgacaat gttgtggccg 180
 tgtgttgggt gtgattgttt gtttgttgca gtggctgcat tctactggctg ggcaccagga 240
 tctataagat aatgtgtacg tacgtacgta ctgtattcct gaacttgtag tgtgacgagc 300
 gagactcgct ttgtaacgtg ctattctgtt gct 333

<210> 8863
 <211> 384
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-054-Q1-E1-H1

 <400> 8863

 actagagcct gcctcctgtt ggtttcccat cgcattgctgc cgcaactcct atgatctgcc 60
 cgagtggcct tatctgttaa ccatcggttt ttgcatttgg gtagtgatgt tccctaatat 120
 actggtatgt ggtatgggta ttgtaagttt tttcatataa agtgccttga atactatgca 180
 aactttgaga cttgatgatt gttttgagat atgaagatgg taatattaga gtcattgctaa 240
 ttgtctaatt gtgaatttga tagatacttg tgtcaaagtt tgtgattccc gtagcatgca 300
 cgtatggcga accgttatgt gatgaagttg gagcatgatt tatttattga ttgtcctcct 360
 tatgagtggc tgtcggggac cacc 384

<210> 8864
 <211> 249
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-054-Q1-E1-H10

 <400> 8864

gggtaaataa gaaattagag ttatggctag atacgtcggc ctgtgaattc cgattgcca 60
aaccggaggc ataggtaggt cgataatcat gccttacgat cgcacttgtc caaaacttac 120
ggtttgtcac aaaagtaccc ccaccaatth gaactaccgg gcctttcggc tcaggtttat 180
accggggatt tcccctgttg ggattttgac acctgccgga cttttcgcgc gcgttgtaat 240
ttctggata 249

<210> 8865
<211> 370
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-054-Q1-E1-H11

<400> 8865

acagtggttt tgaactgctc attgatgcc aattttgtga tgatatatgg gtgtgtgcct 60
ggggcatgct aaaaagtgcg cagattgtgc ttggagttac caaagctggc gccgctgcta 120
tatctggata gcaatgaagt gggtgcaaca gangagaagg agattcttga gctttggagg 180
gtgctgaagg atgagctgtg tcttccgctg atgatatctt tgtgccaaact caacggggtg 240
cgcttgccgc cgtgcttgat ggcattgcc ggtgatctga aggctaaagt cttggagttt 300
gttcctggtg ttgatcttgc aaaggttcag tgcgcatgca aggaattgca cgatcttgca 360
acagatgata 370

<210> 8866
<211> 394
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-054-Q1-E1-H12

<400> 8866

cggaggaaaa gcaaanaccg aaaacggcaa gggaccccg ggcttcccgc aacccccaat 60
ggcgggaagg aaaatccgcc tcccctaaga agcaacccca tgcccaccga aaggaccggg 120
gatggggtta ctaacaacct tcagctatgc ttacaaaaca aactttgggg gctcccaagg 180
ccagttcacc aagctaacaa ccggcggcaa cttgaaccaa aatgccccat tacccaatgg 240

gaaactaaac atggcaaagg aaacacctcc attaaaatta taaaaaccaa agatgacacc 300
acctaaataa atttgggttt ttatgccacc ctaagggatt taaaaaacg cttgttgga 360
gccaacccca ttttattttt gtcctttgct tttt 394

<210> 8867
<211> 245
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-H2

<400> 8867

acggtcatga aaacacgggt cggcacgatc aagaccaacc aggcgcgccc atggaaggag 60
tactccagga ccatctacat ccagaacgag atcggcgcct tcatcgaccc caagggctgg 120
ctcgagtgga acggcgactt cgccctcgag accctcttct acgccgaggt ggagaacacc 180
gggcccggcg ccgacatgag ccagcgcgcc aagtggggcg gcatcaagac tgtcacctac 240
gccga 245

<210> 8868
<211> 77
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-H4

<400> 8868

gacccacgac ttctttgtcc tttcccaatt ctacacaagt ttatttgact aggttgctct 60
cgaggaagtc cttaaaa 77

<210> 8869
<211> 406
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-054-Q1-E1-H6

<400> 8869

cgcgccatag gaaggagtgg cgacgccggg gctgctaaag cactggacca cggcgtggag 60
atggagacag aggttgctgt caccgccggc gagttatcgt tgcaccctga cgtcgtcgac 120

ggtgtcgagc ttccacagcc ggaggcagag ttccacaccg actccgacga ccaactccggc 180
 gatgactccg acgaccactc cggcgacgac tccgacgacc actccggcga cgactctgat 240
 gaccactccg gcgacgactc cgacgacgac ggacagctgg ttagtcatct ataccattt 300
 atgtgtcaaa tagatcatag ggtttctctg gttaatcctg cctccccctt tttggaatag 360
 aaatcctatg gttatgttct cccaatccat gaaatctgag taagtt 406

<210> 8870
 <211> 396
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-054-Q1-E1-H8

<400> 8870

cctatccgac ccaggacttc tttgtcggtta cccaagtcta tagtaacgaa tttgactagg 60
 ttgctctcga ggaagtcctt aaaatctagg cattcaacgt tggcatggca tatgtggtag 120
 accaagcata agtcatgcac gcaaacctgg atcacggcgg gcttcttctt ctcttcgtcc 180
 tttagatcct tctctcgtcc caggactgtg gtgtactcaa catctagccc agcgacncgc 240
 tcatcatctg agtcttcgaa catgcttctg aagcgagaaa ggcatccttt cacaatcccg 300
 gaagaacggg tgtagatgac gtcgaactca tcgccggtga tggttctaac cttgtactca 360
 ccacggatcg tggagatttg ggacgccatg gatttg 396

<210> 8871
 <211> 469
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-054-Q1-E1-H9

<400> 8871

tccggcaatc aagggtcggc cggggagggg ggggtatcgc agctggagca gagaggttat 60
 ggcggcctgg gatttcgaat ggcgaaaagg aggcgatggg aggggggtgaa gcatgactta 120
 ggaacgcact tgtccaaaac gtaggggtgtg ttacaaaagt acccccacca atttgaacta 180
 gcggcccttt cggtcaggg ttataagggg gatttcgcgt gttgggattt ggaagctgga 240

gggagttttc gcgcgcggtg taatttcggg atagcaaggc gcgggttggtg aaggcgccag 300
 ttttgggagc acgatatttg aattttcggg atataacaag acgcgggttg aatttttaggg 360
 acaagcctaa cgtgtagcaa tattgtactt gtacgtacca aatcaattcg cacttccttc 420
 aaccaaaaag aaaacgacaa aaataaaact attcacacca cacanagag 469

<210> 8872
 <211> 462
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-055-Q1-E1-A10
 <400> 8872

ggtcaggaag gccgggtcga ccgggacccg cactgaaaaa cggctctacca atagacatgg 60
 gtggaacata cgactgagct ggggaaggca ccacatagga tggcctcggt gtatatccgg 120
 aaggaagagc ggagtttgga acccaaatcc ggcgcttctg ggaactagag ccagaggaag 180
 atcccaatat acgggtgtgc ttacgagact cctcgtaagt gagctgagct gtctctgcat 240
 tgatggcctt gttcacaagg gcttggaatg tatcacaatg atgcaggtgg aggtcacggc 300
 gcaacttggg ggtagaacc ctttggaatc tagcctgctt cttggcgctc atggacactt 360
 cttctgtggc ataacgggcg aggttctcga actctctgct gtaagcatca acagccatct 420
 tattctgggt gagactacag aactcttctc tcttgcgatc ga 462

<210> 8873
 <211> 465
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-055-Q1-E1-A11
 <400> 8873

gggtcggccc ctcgaccaat gacactccat cccaacccca ccaatcttca ccgctgcttg 60
 acgacatgga gctgaacacc gctgcaacca tgggtggcgcc ccctctgacc aagggttggt 120
 gacgccagca aagcaaagga agatccgcaa caaaactctg caaggttaat tctactgatct 180
 gtacttcaaa cttgattggt gaattgtact aaattccata cccggctctc cgggtggcctc 240
 cctgcaaaaa aattgagata tctcatatat tggcaaagct aatgcctgag agggagctac 300

caaacaagca tgctttatat ttgggacgtg caggctggaa ggatcattgg taattgatcc 360
tatcaaagga aggtgcgac tccagcctga aggaatggct ggttgattca gctataggaa 420
gcaatcctgt tctgcaattg attgctggaa tctatattat gcaag 465

<210> 8874
<211> 482
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-055-Q1-E1-A12
<400> 8874

cggtcaggcc attccgggtc gaccgggtaa aacgcgatga atccttctct ctgatttttt 60
tctccccgaa cacgaatata tggagttgca gttgaggtcg gtggagcgtc agggggccca 120
cgaggcaggg gggcgcgccc agggggggcaa gcgcgcccc accctcatgg acagggtggag 180
gccccctag cgtggattct tcttcagta tttttaatat tttccaaaaa taagttccgt 240
ggagtttcag gtcattccga taacttttgt ttctgcacat aaataacacc atggcaattc 300
tgctgaaaac agcgtcagtc cgggttagtt ccattcaaat catgcaagtt agagtccaaa 360
acaagggcaa aagtgttttg aaaagtagat acgacggaga cctatcaact cccccaagct 420
taaacctttg cttgtcctca agcaattcaa ttgataaact gaaagttata aagaaaaact 480
tt 482

<210> 8875
<211> 395
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-055-Q1-E1-A4
<400> 8875

cggtcgcacc ggcggccgta gatagttcat ggctcgtact cactccgatg gaggccaggg 60
agcatttggg tactggatct atccgctggg agatggtagc tcgggatatc ttcaaccggt 120
ttggatggca gtcattgtaat agggtaggca attagtttac ctatttatct ttagccagcc 180
ggttggtggcg tcttatcttg gctagtctgt gtgtccagcc tctttaactc tgtgtgagct 240
gtctttttac tacttttcgg tcggagactt tggaaccttg ttggaacttt ttatttcggt 300

aataagatgg ccgtatgcat cactctgatg cagtggccgg ggagatcccc ttttcgaaaa 360
 aaaaaaaaaa aaaaaaaaaa aaaagcggcc gctct 395

<210> 8876
 <211> 405
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-055-Q1-E1-A5
 <400> 8876

cgggccgacg ggagagcgcg cggcggccga cgggcgatgg cggcggcgac agcgggagga 60
 gtttgatttg ggggacgtgg tcgtggggaa gaacgaaccg tgcggttaag tcagaagtag 120
 cagtagcgcg ttccaagaag tgcgctactg ctaagctagc tacagcgcat tcctctatac 180
 gcgctactcc tattcctttt tcttttttcc cctttttcat ttatttttct ttacatttta 240
 ttttttttcc tttcaccttt ttctatttct ttcattttca tttactttcc atttaatttt 300
 atttccttta gcagtagcgc ctttcatcgt aaacgcgctg ctacaaagca ggtagtggtg 360
 gcgcggttct acgtacatcg ctactactat gcgtagccta tcggc 405

<210> 8877
 <211> 405
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-055-Q1-E1-B1
 <400> 8877

ggatcttaat gtaggagaat tcccagatct taaacttctt gttgactggg cagtcaattc 60
 gggttttcat cttgttcagc tccttcctat caatgatact tctgttaaca agatgtggtg 120
 ggattcatat ccatatagct cactctccgt atttgcggtg cacccttgt acctgagagt 180
 gcaggcgctt tcagatgcta ttccagcaga tgtaaggaa gagatttcga aggcaaagaa 240
 ggagttggac aaaaaggacg tcgactatga ggcagcggtg gccacgaaac tcagaattgc 300
 ccaaaaaata ttttaatttag aaaaggacaa agtgctaaat tcagctccgt,tcaagcagtt 360
 cttatctgaa aatgaggaat ggttgaagcc atatgctgca ttttg 405

<210> 8878

<211> 458
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-B11

<400> 8878

cggggtcgacc gcacctgaat acagaaacct ccaatctgca gtgtacatgg aatagcgag 60
 tctatggtca catcatcccc ttccccttca aaagaaaccg tcctcggttt cgaggcagtc 120
 tttgcaacct tcttcttcaa tgtgacatgt ccatcccctt gattgcgttc tcaaacatcg 180
 gccgcagcac gcgtcgcttc ctagaatccc agaatgaata tgtattcgtc cgaccttcat 240
 gtgtagcatt gtgatcatat tgccatggtc tccccataa caagtacat gcattcatag 300
 gtatgacatc acatatacc atatacgtat aatcaccaac ataaaatttg acgcgcacct 360
 tatgagtaac ctttaacttc cctgtatgat acatccactc gacatggtgg gggttgcggg 420
 tgcttccata caggcaaccc caaagcttca acaaaccc 458

<210> 8879
 <211> 479
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-B12

<400> 8879

cggtcaggaa ggccgggtcg gccggtctca gaaggtaaac gatccagaaa tcataccaag 60
 gttagagaat gatttgggtga aatgtcttgt cagtttcgag ttggtgttcc caccatcctt 120
 cttcaacatc atgacgcacg tcctagtcca cctatgcgaa gagattaacg ttttgggtcc 180
 tgtatttcta cacaatatgt tccccttga gaggttcatg ggagtcttaa ataaatatgt 240
 tcataaccgt gctaggccag aaggaagcat ctccaagggc catgaaaatg aggaggtcat 300
 tgagttttgt attgacttta ttctgacct taagccgatt ggtgttcctg aattgcggca 360
 taagggcaga ctagatggaa aaggcacgct aggaggggaa caaataatat gtatggatgg 420
 acattctctc actgaagaac actacacagt tctacaaaat tccgccttgg tggctccgt 479

<210> 8880
 <211> 440
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-B2

<400> 8880

```
ccgggccgac cgggtgcgcta acagagagac aacctggaag ttttagagag tcatttattt   60
ctgttgagtg cttttataaa gtttaaaaac aaaaaataaa taaagagggg aacccaaaaa  120
tttttcaaaa aggaaagtga aagtgaaaga gacaagcatg gttgaagtgg gggagctcct  180
tgaactttgt tcatgctcac ggaaactttg tgaatcttga ttacagaaac ttttcaataa  240
aaataattat ccccttgtag aattccattg tattataaaa ataatgtgcc aaggtttgcc  300
tttaggatgt ttacaatgct tgttggtttg tatggtgcag gacagaaact ttgactgtag  360
cgcggtggtt ttaatttttt tactggaacg tcaaacggtt ctgattcctt ttgcactgtc  420
cttccaaaca aatgttttaa                                     440
```

<210> 8881

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-B3

<400> 8881

```
gggccggccg ggaggttgag aaactgattg gcaggatagt gaagtggctg aagcccggtg   60
ggcatatttt catcaggagag tcttgcttcc accagtctgg ggattccaag aggaaagtga  120
acccgacgca ctaccgggag ccaaggtttt acaccaaggt gtttaaggaa tgccactcct  180
atgaccaaga tgggaattcc tttgagcttt ctctggtaac ttccaagtgc attggagctt  240
atgtgaagag caagaagaac cagaaccaga tatgttggct atgggagaag gtcaagtgca  300
cagaagacaa aggctttcag agattcctgg acaatgtgca gtacaaatcc actggaatcc  360
tgcgttatga gcgcgtgttt ggggaggggt atgtcagcac cggtggattc gagaccacaa  420
aa                                                         422
```

<210> 8882

<211> 383

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-B4

<400> 8882

gaccggggaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaattaaaaa aaaaaaaaaa aaaaaaaaaa 120
aaaaaagggg cccccaaaaa ggttcaaacc taacttacc ttgaatgcaa cttcaaacc 180
ctccaaaatt gccaccaaatt ttcaattcac gggccttctt ttaaaaaactt cttaacggga 240
aaaaccctgg cttaaccaa ttaaaccctt ttgaaaaaaa cccctttttc ccaaccgggc 300
ttaaacccaa aaaggcccca accattcccc cttccaaaaa tttcccaacc ctaaattggca 360
aatggaaccc cccctttacc ggc 383

<210> 8883

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-C1

<400> 8883

ggtcaagaaa cccggggccga ccgggagtta cagaatgggc cggaggtaaa gatttatata 60
tggaagtcc tattttggcc accaaaaaat gttcgggtatt gtaccgggaa ggttctggag 120
tggggcccac ttgcttgggg ggcccacatg aacgtgggta gtgggggcaa ggccccacac 180
ccctggtcaa ggcgcaccaa gatccccct tagaaggaat aagatcatat cccgtaggga 240
taggatcaag atccctaaaa aggggggata acaatcagtg gggaaggaaa cgatgggatt 300
tcttttctcc cacctttgcc aacgcccaat ggacttggag ggcaagaaac tagccctcc 360
accctatat atagtgggga ggcgcattgg agcttcaccc ttccctggc gcagccctct 420
ccctctc 428

<210> 8884

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-C10

<400> 8884

cgggtcgacc ggatgctagc tatcatagca tcatgcaaag caatatgaca atgaatgctc 60
 aagtcattga tatgattatg atggaagttg catggcaata tatctcggaa tggctatgga 120
 aatgccatga taggtaggta tgggtggctgt tttgatgaag atataaggag gcttatgtgt 180
 gatagagtgt atcgtatcac ggggtttgga tgcaccggcg gagtttgac aaactctcga 240
 ggtgagagag ggcaatgcac ggtaccgaag aggctagcaa tggtggaagg gtgagagtgc 300
 gtataatcca tgtactcaac attagtcata aagaactcac atacttattg caaaagtcta 360
 ttagctattg aaacaaagta ctacgcgcac ggctcctggg ggatagattg ggaagaaaag 420
 acaacgtcc gtccccaacg cca 443

<210> 8885
 <211> 392
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-055-Q1-E1-C11
 <400> 8885

atgctagcaa tcatacgatc atgcaaagca atatgacaat gaatgctcaa gtcattgata 60
 tgattatgat ggaagttgca tggcaatata tctcgggaatg gctatggaaa tgccatgata 120
 ggtaagtacg gtggctgttt tgatgaatat ataaggaggc ttatgtgtga tatagtgtat 180
 cgtatcacgg ggtttggatg caccggagga gtttgcacaa aactcaggg tgagagaggg 240
 caatgcacgg taccgaacac gctagcaatg gtggaagggg gagagtgcgt ataatccatg 300
 tactcaacat tagtcataaa gaactcacat acttattgca aaagtctata atctattgaa 360
 acaaactact actcacatgc tctgcgggg at 392

<210> 8886
 <211> 372
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-055-Q1-E1-C12
 <400> 8886

cgggtcggcc gggacgaagg cgataagtac tgagttgatc aagcatgggt acgtgcttaa 60
 ttgggtggca gtgttggtgca cttcatgccg tatgttggtc ttctctgtcc ctgtttgctt 120

gccgttgcac ctgtgatggt cgggtggttag cagagtacaa aaattgtcag attgggttcgg 180
 gtgcactgac ggctcgggtgc cacatagtct gtgaggaggt ggtatcgata catcataata 240
 atgaacgaag attttttcta ctgcaagttg caggggtatg tcttcctttg ttttgttatg 300
 aaagcaaagc atggttagacc atacgatgtc tgttaaaaga aaagaccatg cgatgcaaatt 360
 tttattagtc ct 372

<210> 8887
 <211> 378
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-055-Q1-E1-C3
 <400> 8887

ggagagtcac ttagaatagc atggtatctt atatggttac aaatttggtc ctagaatgat 60
 gagcattcac gttgggtata ataaaaacta tcataggaag tgaattggat gctatgatca 120
 atttgttgct tgataattgt tttgaaatac gaaggtagta atgttagggt catgctagtg 180
 gataattatg aaattgagaa atacttttct tgaagttggc aagtcgtgta gcatgcacgt 240
 atggtaaaag ttgtgtgaca aatttgttgc atgaggtgct cttttgattg tcttccttac 300
 gattggcagc cggggacgag cgatggtctt ttcctaccaa catatacctc ttggggcatg 360
 tgtagtacta ctttgctt 378

<210> 8888
 <211> 417
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-055-Q1-E1-C4
 <400> 8888

ccgggtcgac ggggtcggct acatgagcgg cggctgcaag agtgatgatg gaagtttgag 60
 ttgtggatat tcaagtttta gaggaaaaag ggcaaccatg gaagacttct ttgacataaa 120
 atcatctaaa attgatgata aacaaataaa tctcttttga atatttgatg gtcatggggg 180
 ttcacgtgct gctgagtatt tgaaggagca cttgtttgag aacctcatga aacaccaca 240
 attcatgtca gatacaaaat tagcaataag tgaacatat aaaaaaactg attcagattt 300

cttggattct gaaatcaaca ctcacagaga tgatgggtca actgcatcga cagcagttct 360
gcttggaat catctttacg tggctaacgt aggtgactct cgggctgtaa tatcaaa 417

<210> 8889
<211> 118
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-C6

<400> 8889

tgaagttcat acaaaactca ctttggaaaa ttttgggtcat gccagttcac atgttccaat 60
tattttaacg attcgtgttc aaaactcatc gcacaccaca atttagcttt aaacacac 118

<210> 8890
<211> 453
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-D10

<400> 8890

acgggtcagga ataccgggtc ggccggacct aagttagcaa aaaacgatcc atttcaccta 60
aattagctct taaatgatcc atttcaccta agttaggtca taaacgaccc atttcaacta 120
agttagctca taaaagctca taaatgatcc atttcaccta agttagctaa aaaacaatcc 180
atttcaccta agttagctca caaacaatcc atttcacata agttagctca taaacgaccc 240
gtttcaacta agttagctca taaatgatcc atttcaacta agttagctca caaacaaccc 300
atttcaactt tgttagctca tatatgatcc atttcaccta agttagctca taaatgacat 360
atacttcttg ttctagtctt cttcttggtc tagtcaccta tttctaactt tcttatttac 420
cattttgcag atttcaattc acttcatgga agc 453

<210> 8891
<211> 480
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-D12

<400> 8891

eggtcaggcc agtccgggtc gaccgggtgg cttcaagga gatgccgaaa gaaggggtgct 60
 tgaccgtgag aaggggggtcc gtggcgtgga ttgggtcagg gccagagttc ctgatcagcc 120
 tagctgacca cgcgagtgag agagacgcct acacgggtgtt cgggtccgtg gtgccggagg 180
 acatggccat cgccgaggag atgtcgatgc tccccgccag cacagacgtc tggagcgggtg 240
 tgaccgtcag gctgctgaag gaccgggtgt atatcaaggt gaagagaaga agcaatgcga 300
 ctgcctattg agctcgccag cgattttgtt cttcttcttc ttcttctttc acatgatgta 360
 gcagtagtgc caaaagataa gaacacaaaa ttacatgtcc aaacaaagaa agaaagaaaa 420
 tagaggaggt ttggaagaga actgttacac ctgtggtttc tgtgcccgtc agcaagccat 480

<210> 8892
 <211> 400
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB104-055-Q1-E1-D3

 <400> 8892

gaaanctaac ctacggcggc tactccagca tgggtggtggt gcacgagcgc ttcgtggtcc 60
 ggttcccga cgccatgccg ctggacaagg gcgcgcccct gctgtgcgcc ggcatcaccg 120
 tgtacacccc catgaagtac cacgggctga acgctcccgg gatgcacctc ggcgtgctgg 180
 gcctgggcgg gctcggtcac gtcgccgtca agttcggcaa ggccttcggg atgaaggatga 240
 cggtgatcag ctcatcgccg gggaagaagc aggaggccct cgagaggcta ggcgccgacg 300
 gcttcgttgt cagcaagaac gccgacgaga tgaaggctgc gatgagcacc atggatggca 360
 tcataaacac ggtgtctgca aacatcccca tggcccctct 400

<210> 8893
 <211> 356
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-055-Q1-E1-D4

 <400> 8893

cgacggggag gccgggtggc ccaccaggc ggagcccggg cagattggcg tcgggggtgca 60
 ggaggccagg gacttcaacg agggcatgat tcgggtgtgc agcagcggca agggcacgcc 120

gctgatgccc aacaggacgt tcgagaccta cctcttctcc ctcttcgacg agaaccagaa 180
accagggccg atcgccgaaa ggcacttttg cctcttcaac ccagacttca cggccgtcta 240
cgacctcgga ctctccggg acggcgcgtc cgtgggtcca accccttcgc cgaacccatc 300
gccaatccg agccctaagc ccgcgccgtc gggaggccg aagtgggtgcg tcgcca 356

<210> 8894
<211> 384
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-055-Q1-E1-D7
<400> 8894

gcggatcttg ataagecatc agagaaagaa gttgacactg ttgtcaagcc atcagaggac 60
agcatggctg ttgaggagcc tgtcaccgac aaaccatcag tggagatga agccagtgt 120
gagccatcaa acgacagaat agatgccgag aaaccatcag aggagaaaga agacgacact 180
gtgaagtcac cagaggatag catggctctt gagaagccag ccactgacaa accatcaaag 240
gaagaggaag aaggcgagc caccgagaag ccgtcgcatg acgatgctgc catcgaggca 300
ccatcgacac acgacacgga ctcgccacc gacataacct cgctgccac agagacgaac 360
atatcagcct gagtcaaca agac 384

<210> 8895
<211> 472
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB104-055-Q1-E1-E11
<400> 8895

gggtcgaccg gttatgcatg gtgaactttg ccacaaatac gatgtcaact acatgatcat 60
ggaaggcaat ataacaatag taatgtatgt catgatgata aacagaacgg tggaaagttg 120
catggcaata atatctcgga atggctatgg aaatgccata attaggtagg tatggtggct 180
gttttgacga agatataagg aggtttatgt gtgaaagacc gtatcgtatc acggggtttg 240
tatgcaccgg tgaaagtttg caccaactct caaggtgata aagggaatg ctcggtactg 300

aagaggctag caatgatgga aagataaaag tgcctataat ccatggactc aacgttagtc 360
 aaaagaacta atatacttat tgcaaaaatc tacaagtcac caaaaaccaa gcactacgcg 420
 gaagctccta gagggataga ttggtangaa aagaccatcg ctcatccccg ac 472

<210> 8896
 <211> 413
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-055-Q1-E1-E12
 <400> 8896

ccgggtcgac cggctgttct tcatacctac agtccacgaa aaagccacaa aaaaaattag 60
 ggtagttca tcatatccga accaatctga gcctttgcat aatcttttta gggttttgct 120
 ttgttgaatt tgcggttgca tcgtcgtgac tagttgctgg tcttagagtc tagtctttta 180
 gagtttcgag ttctgggtcat aagttgtcac gccgcgcgcg cactatcatc atcgcccctg 240
 ccatctacca ccaccgctta tccgccactg ctccgaatct gtatccatat accaccacca 300
 atccgtgtcc atataccacc accgatccat atccatatac taccaccgct accaccaccg 360
 ctgccatata ccaccaccat atatccacca ccaatccgag ttccttgcat att 413

<210> 8897
 <211> 398
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-055-Q1-E1-E3
 <400> 8897

ccgggcccgc cgggagcaca agaaagcgga ggagcacaag aagaaggacg gggagcaca 60
 gaaggacggc gagcacaagg agggcatgat ggagaagatc aaggacaaga tcagcggcga 120
 cggccacggc gacggcaaga aggacggcga ccacaaggag aagaaggaca agaagaagaa 180
 gaaggacaag aagcacggcg agggccacaa ggacgacgac ggccacggca gcagcagcag 240
 cgacagcgac agcgactgag ccagctccg cgcgctccg gcagcagcgt gcagtgtagg 300
 cgagatcgat gaacgcttg gagaagtgtg gcatacatat atgttgacagg gtttgagcgc 360
 tgtggtagca tatgtatgta atgcgtgaca tgcctcat 398

<210> 8898
 <211> 439
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-E8

<400> 8898

```

aggtagatc tagaattccc gggccgacgg gcacctctac aaactgggga tgcattccgag   60
gcgaaaacag tgtccagcaa attcccgtgt gggtaatat tggattcata actctagcaa  120
agaggctatc tgggtgttgt agcagtctcc acccttggtt cgcaaggagg gcgagggttaa  180
acaggtgcat atccctgaaa ccaatcccat ccgcccgttt aggacgagtc atgtgttccc  240
acgacatcta gtggaccttc ctgtgacctt cttcatcacc ccaccaaaaa tcccttacca  300
ttttctcata cttgtcacag aaccctttgg acaggaggaa gacgcccata gtgaagcaag  360
gaagcgcttg aaccacagat ttgacgtgta cttccttggc cgcataagac atgaattttt  420
ccgaatagtc acaacaact                                     439

```

<210> 8899
 <211> 483
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-055-Q1-E1-E9

<400> 8899

```

cggtcaggcc agtccgggtc gaccggaaga ggcggctgat ggaggccgag ccctccgcac   60
cggagttcaa gcccacgctc accgtcgccg ctgacggcag cggcgacttc aagaccatca  120
aggaggcgct cgcaaagggtg ccgcccgaaga gcgcctccat gtacgtcatg tacatcaagg  180
ccggcaccta caaggagtac gtctccgtgg gccgccctat caccaacctc gtcgtcatcg  240
gcgacggcga cgacaagacc atcatcaccg gcaacaagaa cttcaagatg aacatcacca  300
ccaaggacac cgcaaccatg gaggcaatcg ggaacggctt cttcatgaag ggcgtgaggg  360
tggaagaacac ggcggggggc gagaaccacc aggccgtggc actgcgggtg cagagcgacc  420
aggccgtctt ctnacagtgc tacttcgacg ggttacaaga cacgctctac naccacgcgc  480
aac                                                         483

```

<210> 8900
 <211> 405
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-055-Q1-E1-F1

 <400> 8900

```

aggcacggtc cagaagcccg ggtcgacggg gagcacaaga aggacggcga gcacaagaag   60
gacgggggagc acaaggaggg catgatggag aagatcaagg acaagatcag cggcgacggc  120
cacggcgacg gcaagaagga cggcgagcac aaggagaaga aggacaagaa gaagaagaag  180
gacaagaagc acggcgaggg ccacaaggac gacgacggcc acggcagcag cagcagcgac  240
agcgacagcg actgagccag ctccggccgc gtgcagtgca ggggagatga acgcgtgggt  300
taatttggag cgtgtggtaa catatgtatg taatgcttga catgtctcat ggatcttgta  360
atgtaataac cggctgcact gcatggtgct tgtaataata acgtt                      405
  
```

<210> 8901
 <211> 353
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-055-Q1-E1-F11

 <400> 8901

```

cgacgggaac aaatgtagaa attgaagtac ctgtacccta tgatgccaca aacccaaata   60
taaggacttc aatgggttct gcggcatatg caccgagag agacgcaatg gtctggaaaa  120
ttaaatcatt tcctggtggc aaggaatata tgtgtagagc agaatttagt cttcccagca  180
taacctcgga agaagcaacc cctgaaaaga aggccccaat acgtgtgaaa tttgagatac  240
catattttac tgtttcaggc attcaggttc gttatctgaa agtgatcgag aaaagtggat  300
accaggccct cccttgggtt cggtacatca cgatggctgg tgaatatgag ctg          353
  
```

<210> 8902
 <211> 333
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-055-Q1-E1-F12

<400> 8902

ccgggtcgac cgtagcccgt ggaggatggc ggatgtcgat ggtggagatg aacagtatcc 60
cgtggagtcg cgttttgcgg tacgccacac ccctcccaat gagatatgac cccattcct 120
tctccccgcg ctagaacaga gatgcgcctc agtagggcag cagcagcagt agcgtctcca 180
tggaacgggt ggcatgacag ctcccaggca cggatccct cctctgcctc catcctccac 240
ctctccggtc ggctgttgc aatgtccgaa gcagcagcaa gcgacctgca gcagctcgtt 300
cctacgttcc atggacgagc tcgatggaga cat 333

<210> 8903

<211> 285

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-F4

<400> 8903

gggagaagga gttcaaggtg aaggtggcgt cggaaaagga caaactcggg aggggctacg 60
tctttgggaa gctcctctgg tccgatggga ccactatgt gaggagcccc atcgtggtaa 120
atgccctgga ttgagatatt ttaattttgt ggtgtgtagc tcaagggaag gaagtgtcca 180
cagtttagga attttatttt tcagtttatt actgagaatg agaagagttt aggttttagc 240
tctcctggtt gctaataaac gctatttggc tctaaaaaaa aacaa 285

<210> 8904

<211> 475

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-F9

<400> 8904

cgggtcgacc ttcacatgac accaaaaagg gaatcacaac atacatacta tcaaaatac 60
gaacacattt caagttcaca tgattacttg caacatgatt tccccgtga cctcaagaac 120
aaaaataact actcacaagt gataaacatg atcaagatca aaggggtatt aaatagcata 180
atggatctga acatataatc ttccaccaa taaaccatat agtaatcaat tacaagatgt 240
aatcaacact actagtcacc cacaagcacc aatctatagt tccagtaaca agattgaaca 300

caagatatta actagggttt gagaggagat ggtgttggtg aagatgttga tggagattgc 360
cctccccaag atgggagagt tgcggtgat gatgatgacg atgatttccc cctctgggag 420
ggaagtcccc ttggcggaat cgctccgcca gagggcaaaa gtgctcctgc ccaag 475

<210> 8905
<211> 412
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-055-Q1-E1-G3
<400> 8905

cgggccgacc ggttggttaga gcatgggcat accttttgta gaaagaatta aactctcttg 60
cttcacttat atctatttag agagtgcag gaactgggtca ttcacatggt tagtcataaa 120
atcctacata aacttgtaga tcgctgaata tgatatgttt gattccttgc aatagttttg 180
cgatataaag atggtgatat tagagttatg ctagtgggtg gttgtggatt gtagagacac 240
ttgtgttgag gtttgcaagt cccgtagcat gcacgtatgg taaccgttgt gtgacaaatt 300
tgaagcatgg ggtgtttctt tgattgtctt ccttatgagt ggcagtcggg gacgagtgat 360
ggtcttttcc taccaatcta tccccctagg ggcattgcgt ctagtacttt gc 412

<210> 8906
<211> 378
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-055-Q1-E1-G4
<400> 8906

cgggacgcga gtaaaactga cgagcacaga acgccgccg ccgccgccg ccgtcgttcg 60
ctgggtttcc tcggagtttg tctgacttct ccaatcacag cattgcagag ggaaaatagt 120
aatgggggtg ataaatgcta accctgtgat tcatgagaaa agggagaggc gcatccggca 180
ggcaccagaa aacatagatg aaaatgcacc agaggccata taccagcttg aaatatttga 240
tcatattaga gacataaagg acccagaaca tccatactca ttggaagacc ttaatgtggt 300
aaatgaagac tcagtcgaaa tcaatgatga acttagtcat gtcacggtta ctttcatccc 360
aacagtggag cattgcag 378

<210> 8907
 <211> 415
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-055-Q1-E1-G8

 <400> 8907

aattcccggg ccgacgggga tgcggtggaa gacgatgatg gcgaaccacg aggacagccc 60
 gcacatccga gagaagggtgc tctacgccgt caagcgctac tggaccgccg acagcgacaa 120
 gagctcccaa gagaagaagg caactttcttc tgagggtgtga aatataatgg tgagtgagat 180
 gagctgagct gatgcactgc aactcaggag atcagcggtg gtttatttca acttcttgtg 240
 agttttcttc gagtgtagca gtgagatcag cacgtgtatt cctttttgat tacgtcgtgt 300
 aggatgaaca cttcttttcc attttttcga gatgagatgg taggaaatat tcgacacaaa 360
 gatctacgta ccattttctg cccgtcacag attcaagaat gttgttatgg cactc 415

<210> 8908
 <211> 406
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB104-055-Q1-E1-H10

 <400> 8908

ggggtaaata agaagttaga gttatggaga caaaccttgg aatcgaaagg gtttagtctt 60
 agtagaacta aaaccgagta catgatgtgc ggtttcagta ctactaggtg tgaggaggag 120
 gttagccatg cacagggtgg gcctcagaag gaggacacct ttcgatattt ggggtcaatg 180
 ctgcaggagg atggggggtat tgatgaagat gtgaaccatc gaatcaaagc cggatggatg 240
 aagtggcgcc aagcttcttg cattctctat gacaagagag tgccacaaaa gcttaaaggc 300
 aagttctaca ggacgacggt tcgacctgca atgttgatg gcgttgagtg ttggccgact 360
 aaaaggcgac aggttcaaca gttangtgtg gcggagatgc gtatgt 406

<210> 8909
 <211> 243
 <212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB104-055-Q1-E1-H11

<400> 8909

```
acggttctggtg  tgttcgccct  agtattccag  acgctttaac  cttattatag  ctgtcccagc   60
gtatatgctc   tgcggtttca  gatgaagcga  gaatgtctta  tcatgtttgc  ggcaaccaat  120
tcgcgactcg   gatcgaatac  atggggcgctc  attctatttc  agctgtcgct  cgacaggatc  180
gattcttact   tacccttgca  tgctactttc  tagttcttct  atattgtcac  ctaacttcac  240
ttc                                                  243
```

<210> 8910

<211> 425

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB104-055-Q1-E1-H2

<400> 8910

```
gggtcgaccg   gagtaatgat  tatatttata  aaacttgcca  tgattatgat  tacccttttt  60
ctgaacatta   ctcttttaat  gtggaaacaa  tttatagatt  cgagtttctt  atgacactcc  120
cactattccg   aatgagaaga  attttgctta  tgtggagagt  agtaaatttt  ctatgcttgt  180
agatcatgaa   aagaatgctt  tatgtgatgg  ttatattggt  gaatttattc  atgatgctac  240
tgaaaattat   tatgagggag  gaatatatgc  ttgtaggagt  tgcaataata  tcaagtttcc  300
tctctatgtg   ttgaaaatct  tgaagttatg  cttgttttgc  cttcctatgc  tagttgatta  360
ttgttcccat   aagttgtttg  ctcacaaaat  ccatatgcat  aggaagtggg  ttagacttaa  420
atgtg                                              425
```

<210> 8911

<211> 404

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB104-055-Q1-E1-H4

<400> 8911

```
caagaacagt   ggtcaaagat  ctgaattatg  gacgcttaaa  caagatggaa  caagactttg   60
```


gttatctaag gctcaggctc aatgaagcat ttgacacaat agacagggtt gccaaaggat 120
 atttgtatgc tataagatac atgccagctt tcttacatca gcttcataat gtgatagcac 180
 atacttttcc tcctactcgt gttgtggaca agtcaacaaa tgaggctctc aagaatattg 240
 aggtggtagc tcataatctc aggacagaag caatagtctt gaaaacaagc tatatgtggt 300
 gagaaggcag agtcaagcgc gcctgaacat gtgtatcttg ctttcggacc aaatcctttg 360
 tacttgtgtg gaccaacttt ttaatactaa cggccttggt ccgt 404

<210> 8912
 <211> 293
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-H6

<400> 8912

acgggtgctt ctgtttcagt ttggttcaga gtcaggctct ggatgttgtc aagtttgttt 60
 acttatgggc acttgtgtat tggtttattg ctgggcatta tgccttgata ttaaagattt 120
 ccgcccagta catattgttg cattttgtga agaaaaaaaa aacaaaaaaaa aaaaaaaaaa 180
 aaaacagaac aaaaaaaaaac aaaacaacaa aaaacaaaaa acatcaacct aaacaaaaaa 240
 gagaacaaaa aaacaaaacc agcaatcact aaaaagtcaa aaaaaaagcg gcc 293

<210> 8913
 <211> 475
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-055-Q1-E1-H9

<400> 8913

acggtcaggt attccgggtc gaccggcacc cccagccac gaggctggg gtgttcggga 60
 taaacttgag cactcttggt ccatttttg ggtccatcta gggaggcgct caacacaacg 120
 aaccaggcaa ccggacttat aatgcttgaa cactctcact tagccataga attctataat 180
 tttaaatttc agcgaagccc ctagtcttcg gaaggccgaa tttggggcgc tatccacgcc 240
 tgggctggac aaagctggct cctcgctcta agcggcataa gtctttaggg acttgcaaaa 300
 aacctcttga acagcgacca gctctcgct catcataacg gtcagtttta gctttctcca 360

ttgaggcact cgcccagctc aactggggcg caatcgcagt ggttctccca gtgctacctt 420
agtcgataca atggaacgta aggtaccaaa acatggggagc cgggcaaacc aacta 475

<210> 8914
<211> 391
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-A1

<400> 8914

cggggatggc gacactcacc accgccaccc tctttcttca agcatccggg gacgcgagcc 60
cgggcggttca gaagcagcgc taccagagcc tgaccaaggc cgacgaggaa tgctttgaaa 120
cctgctacaa ggagctgacc aatggcgggc aaaaactcga caatttgtgc accagcaaag 180
agggctcgga cgacatcggc atggcccagc tccccgaaat ccgcagcttc atcaaggaga 240
acaacggggc gcatgccagc tggaattgcg ataggtgtcg ccctgcgaat gacaagaaga 300
caccgcagca tgtctccaag aagaacgatg ccgagaaggc catggctgtc ctccacgtgc 360
tcgtcaacaa agtgaccaa taatgaaaaa c 391

<210> 8915
<211> 440
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-A10

<400> 8915

tagcgtcaac aattcaaggt cgacggggag gcggagctgc aaacaaggag tgaaggtttc 60
aacttggaag ggaaggcgaa aacaggggaa atgtggcttt tggttaagggg gagggggcgg 120
ggaggaagat atttccacac aagccgaaaa attggaatcg cttcagcgaa aaaactggcg 180
cgcaaagtgt catcagacat ggtcccttat tcagaactgt gtatgatatg tgaaaatcac 240
aatgattca gataacttaa cccatgtgtg ttgagtttga acgtcaaaat ttttggttcg 300
aatttcctg gttacagtgg ccatccacgt cattgcataa tttgggtaca caaaggagac 360
taacttctta atcgagcaag ttcagcaatt aaacatagct agctgaccta aacattactc 420
taacaaatta aagaccgacg 440

<210> 8916
 <211> 427
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB104-056-Q1-E1-A11

 <400> 8916

```

ccgggtcggg cgagccgcaa aggtgcactg tcctccttcg ccgtctttgg gctggccatt   60
gtgtgggttcc ttcagatgaa ctctgaggac gaggagtaca ttcacctctg atgtgggttcc  120
tcgctagaga tagggatcat caaattgtga atatctacag tacgatttgg agcattgggtg  180
tttgagcttg tttgtaccag tgaagtgagg cattttcagt tgcattgtaga gttatcctct  240
tcatgcagtc gtgctagtag atgatgtttg atgtttttgt gcaggctctt gacctcactt  300
gcatcactca gttgtttgct atggcatcac tgcatactct gcctagggtt ggccatttta  360
atttttctgt ttcctctgcc tgtgcctcga gtagtctcta gtantagttg ccacgagatg  420
ggagcaa                                           427
  
```

<210> 8917
 <211> 440
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-056-Q1-E1-A2

 <400> 8917

```

cgggtcgacg ggtgctagta tttatgcatg ctatgataat ttgttttcct ataagatttc   60
tatgcatagg aagtatgtta gactcatatg tgtttgtcac atgttttatg atgctctctt  120
tgtgattcat ttgctatcat tcatgtgagc atcattaaaa ttaccaatgc ctagctaaaa  180
ggccttaatg aaaagcactt gttgggaggc aaccaaatat ttttcttttc tgtttttgaa  240
taagtaattc atctagccta tgttttagatg tgttttgtgt ttttaattagt gtttgtgcca  300
agtaagacct ttgggatggc ttatggtgat agttgttttg atcttgctga aaaacaggaa  360
cttttgcgcc caggaaaata attttcattt ttttaaataa gcgtgctttt gatctgatta  420
tttttgcaca gattgcacac                                           440
  
```

<210> 8918
 <211> 399
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-A3

<400> 8918

gacgggtaac atcacggtag tgtatTTTTgc tggagagaat aattttggac aacattaagg 60
 tggcaaattt aatacacatc tgggtgggtt gtttggggca cctagagaaa ccggtgcttg 120
 cccatgggaa tcccggagta ctogtgtgat taccctaggc ccgccacca ggctcaaagg 180
 aatcatatga tatttcatgc ctagaaactt ccgtgtgcag ccacaagcca ttatgggctc 240
 tggcatagtt gagtgagttg tgtaacctct ttcagtgggtg gactagcaga tgtaggggaa 300
 agtaggtgta tcggtctacc cagagtaaag agttaatgct tcagaaagac tatgtctcaa 360
 tcttccgatac atggatgtgg tcgagtcctt tggggaaaa 399

<210> 8919
 <211> 411
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-056-Q1-E1-A5

<400> 8919

gaagtgtatt tttttgtagt ggtaagatct gttagtataa taaagcaaat caccactcta 60
 agtactgtag caaaccaatt catatTTTat ttttgcattg tgtctacttt aatatagctt 120
 ttccatggct taatccactg atataaattg atagtttcat caaaacaagc aaactatgca 180
 tcaaaaatag aatctgtcaa aaacagaaca gtctgtagca atctgaacat tcactatgct 240
 tatgtacccc ccaaaaattc taccaaaatt aggaaacata aacaagttgt acatcaagac 300
 agttcaaaaag gaatcagaac cgtttgacgt tccagttgaa aatgtaaaat cgtgcactac 360
 agccaaagtt tctgtcctgc ancgtaaaa ccaacatgca tttgtaacat c 411

<210> 8920
 <211> 427
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-A6

<400> 8920

acgggtataa tcacggcagt gtattttttt gtagtggttaa gatctgttag tataataaag 60
caaatcagca gtccaagtag tgtaacacat caattcatat tttatttttg cattgtgtcg 120
actttaagat agctttttcca tggcttaatc cagtgatata aattgatagt ttcagcaaaa 180
caagcaaact atgcatcatt aatagaatct gtcaaaaaca gaacagtctg taccaatctg 240
aacattcact aggcttatgc tatccccatt cattctacca gaattatgaa acatacacia 300
gttgtagatc aagacagttc acaatgaatc acaaccgttt gacgttccag ttgaaaatgt 360
acaatcgtgc attacagcca aagtttctgt cctgcaccgt acatactagc atccattgta 420
aacatct 427

<210> 8921

<211> 378

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-A7

<400> 8921

gggtcgacgg ggatctcaat gttggttatt taccggagag tcgtctcggt catgtatgcg 60
tgtctcccaa acccgtaggg tctacacact taaggttcgg tgacgctagg gttgttgaga 120
tattagtatg tggttaaccg aaagtttttc ggagtcccg atgagatccc ggacatcacg 180
aggagtccg aaatgggtcca gaggtgaaga attgtatata ggaagtccaa tttcgccac 240
caggaaagtt tcggtggtca ccggtattgt accaggacca cttgaagggt tccggggctc 300
caccgggtgg ggccacctat cccggagggc cccatgggct gaagtgggaa ggggaacagc 360
ccctggtggg ctggtgcg 378

<210> 8922

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-A8

<400> 8922

ggtaccggac gtacaattcg cgggtcgacg ggtaagggga ttgttgcgta tgggataaag 60
 agaacttgat gctttaatgc tatgggtggg ttttacctta atgatcttta gtagttgcgg 120
 atgcttgcta gagttccaat cataagtgcata tatgatccga gaagagaaag tatgttagct 180
 tatgcctctc cctcaaaaaa aattgcaata gtgattatcg gtctagttat cgattgccta 240
 gggacaaata acttcctcgt gacaaaaagc tctctactaa aacgaactta gttgtgtctt 300
 tatctaaaca gccctagtt tttattttacg tgctctttat attcttgcaa acctatccag 360
 caacacctac aaagtacttc tagtttcata cttgttatag gtaaagctaa cgctaagcgt 420
 gcgtagagct gtaccggtgg tcgatagaac ttgaggggaat atttgttcta c 471

<210> 8923
 <211> 420
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-056-Q1-E1-B12

 <400> 8923

cgggctccta gattggcaag gacaaatatc cttccatgga ccaaaccaaa cggatacaaa 60
 tgaacatgcc acccgtgctt ggaaaaatat cctggagcgg catgcatgga cccgtaccgc 120
 ctataccacg tgggcccggg tacctgtcca ggggccact ggcccgcgcg ccaccacccc 180
 actgacacta taaaaagaac catgcgttca cagtccacgg tcacaactca gaccaacaca 240
 tctgtccag tcaaaactag ctcttagcca caagcagggt aaaaatttca acgaaatttc 300
 agtgaaattt ccgaaatttc agtggggtgc gaaatatctt taaccctgaa agttcaatgc 360
 agtttaaaag taaattcaaa ataaatttaa aattttgttt aaattcagta aaattaaatt 420

<210> 8924
 <211> 318
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-056-Q1-E1-B2

 <400> 8924

cgggtcgacg tggtcgttga ttatgccgcc tgatccattg tcaactggatg taaagtggta 60
 acagtttctt cttgtttaat tacttccgaa aatgataagg gctggtaaga aattgcacat 120

atacatcaat ttcttgtaaa attgtccggg ccagaagtgt acctgcaaatt gtgggtttgtc 180
 tgtaacgcaa tgttgaaatt ttgtactgtt cttgactacg ttgtccctt ttctccggac 240
 cagtggggtg gttgatttca gcttattacc tgaagttgta gatatatcta tttgtcagta 300
 tggaaacatc tactgtat 318

<210> 8925
 <211> 240
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-056-Q1-E1-B3
 <400> 8925

aaattccaag gcccccaagg tcaaaaaggt caacaattcc ggctcaaatt gtcctaacgg 60
 aaagcacccc aagccaacaa tctgcgaaga tgataaatga caaatccggt gccatgggtga 120
 cacagtcctt cctaaggacg ttttgaaaag ctattgtgtt tcgtgccggc cattctacct 180
 aaatctcagt tgttttctgt tagagttatg tttcacgctc aagaataaat tatttctgtg 240

<210> 8926
 <211> 458
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB104-056-Q1-E1-B6
 <400> 8926

ttcgcggggc gacgggtgga tgcaagcact tagaatcatc caatgggtcc actctcctga 60
 acttaagggt ttggcaaggt aactacaag caggagaaag aatcaagggc caaagagcaa 120
 gcaagaatat ggttgccata caaaccatca agttggacca gaatgaagat gaggttgata 180
 cactcaaatt tttcaaacaa catcattggg tttttgcata aagttgaatc ataagctact 240
 acccgcatcc cataattttg gtggaggcta gaaggaagta tttaaatgag ttgtagtga 300
 aaattgccc aatggaccaga gaagaaaatt ggggtgtagag ctcaaaatat ttcatagaata 360
 aaagacattt ttgcataaaa gtgatttaaa aacatcacct gacatctcca nattttggtt 420
 ggaacttta atgaatttat cagatggttg tagttcaa 458

<210> 8927
 <211> 404
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-B8

<400> 8927

attcgcgggc cgacgggagc atcaacctag agctctgcat catcctctac aagcaagtac 60
 cgaaccacca tggccatgcc actcgccatt gtgcaccaat ttgacgacga tgatttccac 120
 agctttgttc atggatggct ggcttaacga aagctcacgc cgacgcctcc ggtgtggctt 180
 cccctaagcc tccagcatag ggttcttgta catgcgaaag tgcattgatt ttcgatgggt 240
 gtctagctgc agttgtctcc ccatgtaatg gcatcaagtt cagagcgccc caactgcctc 300
 tccttcgacc gtgggtcagg tagtggctcg gtctccactg tactctatcc cttgctctgt 360
 ggtgcctggc cattgtgctt agtccatgct gtgacccctg ttgt 404

<210> 8928
 <211> 411
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-C10

<400> 8928

attcaagggc cgacggggga gcatacgct aatactttgt ttcgataact aatagatttt 60
 tgcaataagt atgtgagttc tttatgacta atgttgagtc catggattat acacaccctc 120
 atccttccac cattgctagc ctctctagta cagcgcaact ttcgcccga ccataaacct 180
 accataccta cctattatgg catttccata gccattccga gatataattgc catgcaactt 240
 tccactgttc cattgttatg acacgcttca tcattgtcat agtgctttgc atgatcacgt 300
 agttgacatc gtatttgtgg caaagccatc gttcataatt ctttcataca tgtcactctt 360
 gattcattgc atatcctggc acacggccgg aggcattcac atagagtcac a 411

<210> 8929
 <211> 401
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-C11

<400> 8929

cgggccacac catgatgcag gaaacataag cccttggtgt attttaccg taccaaactg 60
tacagatgca acatgcagta catgatcata tgtacataag tgaagtgcag ttatcagcaa 120
attggtgctg cattgtttat tcaacaaaga ctgctgtaca ggcatcacga taaaaatggt 180
gcaataagca agggatggga ctgttacaca tgtccccctc caagggttaag ctgccgatgg 240
tgcttacaac agatttaatg ctcgtaatgc ataccacctg gatattcatt gtagccttta 300
tccttccctg tctgtatgca tcgtcagttc ggcaggtctg ctgccggcca gggcctctgg 360
cgaactgtgt cctacaggta ggcggcaaga atggaacaaa a 401

<210> 8930

<211> 345

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-C12

<400> 8930

cggggagcgt catgtattat attagtcttt gcttttttagt ttaccacaat catccttgct 60
gtacacacct tttgggagaa gcctatttga ttagaatttg ctagaatact ctatgtgctt 120
cacttatatc ttttgagctt gatagttttt gctctagtgc ttcacttata tctttttgag 180
cacagtgggtg tottaatttt gaagaaattg ctagtctctc attcttcact tatatctttt 240
tgagagtctt ttagaacagc atggatattg ctatggtttt aaagtgggtc ctagaattat 300
gagcatccaa gctgggtata ataaaaacta tcatagaaag tgaat 345

<210> 8931

<211> 167

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-C3

<400> 8931

atccgtaatg gatgtgtgaa taatgggaac ttggatttga atacaccac taacactaag 60
ttccttccgt tgtgccaaagc tgggtgtgaac ttgtcctgct ttccgcctga cctaactgat 120
gcccctaatt ggggccctcg aaggaaactt caacactgga atccttc 167

<210> 8932
 <211> 403
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB104-056-Q1-E1-C5

 <400> 8932

```

gggccgacgg gctcgacgac gtccttgtcc agaacaataa cagtgttatc tccgaccatc   60
cagcgggaaga gaaggcatag gccctggcgt tgcggtcccg atggcgaaag accatgcacg  120
tcaccctgaa gtttgagagg ctgatgcccg cgtccgcgtc cgcacacctg ccgccgagga  180
gacagcgccc aacatgttgc cgctgtggaa ccacgctgag cgagggattt ccttgtagtg  240
ccgcacaagg ggatcgaga tgaggagccg tggcgcccg cacctgtgga agaggagcag  300
gaggtcgccc cagatatcgg cgagctcca gccggcaatcg gcaaattccc ccagcgggag  360
gaagttgagc gccagatttc gatcggcgat ggtgcccgcc cac                      403
  
```

<210> 8933
 <211> 424
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB104-056-Q1-E1-C6

 <400> 8933

```

acgggataaa cgagagagaa ggaagtgc ataatatgtg ttaatctgaa catacaaggt   60
ccatccagta gtcctacaat aaaagaagag ttagtatgta gttctagcac atcaaataca  120
acaggtttct caagctctac atttagtgct ttaggaaaga ttgacaagga caagatggcc  180
atggagttgg ggtccctgca gacaagtaat ccaactattt caagtttcca gtgcacacag  240
tccttgagtc attcatctga attatcatgc tcttctcgaa tatcaacagg atctacccta  300
ccttccaaaa ctactaagga actggttggt attgagactg aatactgtgt ggccaaggct  360
tcacgtgccc aggttagtca actggggaaa ccttcttcaa agcaatccaa tgaagtctcc  420
tggc                                              424
  
```

<210> 8934
 <211> 433

<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-C7

<400> 8934

gacgggaagt acaactggaa gctgtactct gagaggttga tgaccctttc tgggtgtctat 60
ggtttctgga agtacgtctc caacctcgac aggcgcgaga ctgcgcgga ccttgaaatg 120
ctctacgccc tcaagtaccg caaaatggct gaaactgtcc cattggctgt tgagggcgag 180
acctcgggca aatgatttgt ccttaccaga gaaataaatg gcgggcgagc gctccgcttt 240
accgttcttg attcagtgat ggagcacaga tcggagcgtc ttatgccttt gcttgcctt 300
tgttaccgtt cttgattcag tgatgaactt tagttcctgt tgagtccccg tgttgtcgcg 360
gtaggggaac tggatggatg ctgtgttgtt ggcactttct catggataca gtatttgaat 420
gaatgaataa aat 433

<210> 8935
<211> 442
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-056-Q1-E1-C8

<400> 8935

acgggcaact atacagagtt cctagagctc cttgtacggc ctggttgaaa acccgctgtc 60
ggacctgatt cattgccctt tgtttttcaa aataaagggg ttctgtttta gacttttcca 120
attgttcaa actaatagaa gtagcattaa tcaaatttgc tttttctcgt tctatctcag 180
agtatccatt cattcgatac tcatccgctt ctagttcgac tttctgtaat cgaatccgag 240
ctttttcgag ttgctcaatg gtcnctctac gcaattcttc tgaatttcga atagtactca 300
agatcctctg ttttcgatta tctaataaat cttttaatga aagtagatta ttttgtaagt 360
ttacaacttt tatgatctct tcccgaacca aacatgaatc tttcgattca tttggctctc 420
aagctcctta tttttttttt tt 442

<210> 8936
<211> 403
<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-C9

<400> 8936

```
gacgggcggg ggcaccctcc tatctcgtgg aggctccggt tgtttcttga cttgcactcc   60
aagctctccg gatcttggtc gttccaaaaa tcacgttccc gaaggtttca ttccgtttgg  120
actccatttg atattccttt tcttcgaaat actgaaatag gcaaaaaaca gcaatatggg  180
ctgggcctcc ggtagtagg ttagtcccaa aaattataat ctctccctaa taataaagca  240
cgaattgggt ctccgggttc accgtcacia tgcgctttct tcttcccatg aatttacgct  300
ttcagttttt ctcacctaatt attattttcc acatccaagg tgggtactatt ttaactgtgt  360
atactaaatt caacatgcag tccgttcgta aagcctcgct cga                               403
```

<210> 8937

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-D1

<400> 8937

```
ccgggtcgac ggggtgacaac atgaccttgc aggtgactct ggagcgcgac atgaccaacc   60
tgcccaactc cgaggtcggc ccggttcacg cccccagggt cccaagacc gaggaggaag  120
ggtggtggct ggtggtcggc gacagctcca ccaagcagct gctggctatc aagaggggtca  180
ccctccagaa gagggcccgt gtgaagctcg agttcaccgc cgccgaggag ccagggacga  240
aggactacat gatctacctg atgtcggact cgtacctcgg ctgcgaccag gagtacgagt  300
tcaccatcga catcaaggaa gctggaggcg actaatattca aacacccaaa actctttttt  360
atactgggtt tttgctctta tgtagacaat attatgtgac ctggaactta tcatcttttt  420
gtctgtaatg ttacacctga attt                               444
```

<210> 8938

<211> 359

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-D10

<400> 8938

cgatacgtc tatcacacat aaacctcctt atatcttcct caaaacagcc accataccta 60
cctattatgg catttccata gccattccga gatataattgc catgcgacat ccaccatcat 120
catcatgaca tacattactt ttgtcatatt gccattgcat gatcatgtag ttgacatcgt 180
atttgtggca aggccaccat gcattatctt tcatacatgt cactcttgat tcattgcacc 240
atccccgtac accgccggtg gcattcatat agagtcatat cttgttctaa gtttcgagtt 300
gtaatcctta tgttgtaatc aatagaagtg tgatgatcat cattattaga gcattgccc 359

<210> 8939

<211> 410

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-056-Q1-E1-D12

<400> 8939

ctggaacgag caaggttgat gcatcagtac agttctgaag atggagcggg ggcagttggc 60
ggcggcggcc tctgagagca cgccggacca gtgtgtgten catacccgcc aagtggctag 120
gttgggtctt cgggtcttag atgttaggct tggtgcgat gtctatttgg tattaggccc 180
aggctatctg cgccccctca tcaactgaat aggtgtagcg acagtttggt gcttgacgg 240
cggctttagc cttactgttg tatggctttg taaggctttg tgagaataat taataaaatg 300
gccgtatgca tcgccagat gcagaggccg gggtcactct ccttttctaa aaaaaaacct 360
aggcgttacg atttttagcat ggccatgaat caaccagaac catcgacaga 410

<210> 8940

<211> 391

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-056-Q1-E1-D2

<400> 8940

ccgggtcgac ggggaggaag agccacgagg aggagctagg aactgaatat ctggtgcagc 60
cgcttgccg tgctgaagac gaagagcatt ccagtgactt cgagccagaa gaaaatggtg 120

atggtgctga ggacgaagag attgaggatg acgatgctga ggatgggtgag gatcctgtca 180
 aggcgcaatc ctcacaaaag aggaagaggt ctggtgggga agatgaagat gatgacgacg 240
 gtgatgatga tggatgatgat gatgagaagc ctccatcaaa gcgatagtca atttggtcgt 300
 gctgatctgt gatcttctct gcttgggcca agaaggaaaa taatcctcat ggagaggatt 360
 gttgggaaat gctgtacctt tangacatct g 391

<210> 8941
 <211> 226
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-056-Q1-E1-D3
 <400> 8941

aaaactggca agtcctgtat atatagccag agcatccgtc ccggttggtg gtcceaaccg 60
 tgactaatgc cccctttaat tccggttggt gccaccaatc cggactaaag ggcattgtct 120
 gccgcgctcg cgacacgaaa gtttaatccc aactcgctaa ctgaaggaac tccaaaatgg 180
 tttaaaagcc ctaatcccg cgcctctcg aactccttcc aatgc 226

<210> 8942
 <211> 365
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-056-Q1-E1-D4
 <400> 8942

cggcatgttt atcaagaaag ataactcaga tggcactgac atcttcgtta ataaagtaat 60
 taccacaga taggtaggtc accgttaatt actggtagtt tgataattac cccttcgaca 120
 gcaaaaacta tatttaaatc aaaccttgag cagattttgg acacaataaa ttccttgag 180
 taatttaacc tactaatggt cacacaaact aacgaaccat tctaataaat cataaactat 240
 acaaacacat gctatgattt aatgggtata acataattat aataatataa aattaagtaa 300
 tagaacatgg aaagtgtaca aatcaagtac accagtttcc ccataataaa cgtactacta 360
 tgttt 365

<210> 8943

<211> 446
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-056-Q1-E1-D6

<400> 8943

```
acgggtccca taaacgctga tgatccacaa accgcttccg ccatcaacca ctagaaacca 60
tttgttgtac tcacagacca taatgggtctt gtactacata tgttgtattt tgcattggaat 120
ttctgtatca agttgggtgcc tcatcagcta acagttatcc tggggctgat gagcacaagg 180
gccattttct gggaattaac acccgagat tcgggtcgcca cagacttggg atcagagcca 240
ggctgaccat tggctaattc tatcttagcc aggtcggata acttaggtaa accaacctac 300
gagaccctaa ccaaaacccc agccaagctt ctctgtgcaag atagccacac tgtggtcncg 360
acactttttg cagtcgggtgc ccaacctatc anattagcct gtcgatcaca taccagttga 420
cgatggcaaa aatgtctcat tcgcaa 446
```

<210> 8944
 <211> 364
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-056-Q1-E1-D8

<400> 8944

```
attcgcgggc cgacggggga ggcgaaacgc aagaccgcaa gttattccag taccgcatc 60
ccgccgtcgt cgccgccgtc tggaatcgcc tcgccaccgc ctggattcgc cctcgacccc 120
gactgcaaac gccgtctgcg tgccgccgcc cgccgctggg ggcagatcaa ggtgcctcag 180
actcatcttt caacaacatg gatggcctta gactcccctc aaccattggg aaagcaaaga 240
gctacgcatc ttcttcotta ggagctctgc gaaagaagat gcctcaatct ggaagccgat 300
ctctacacac aagtcgcccc cggtcagctc ctgttgcan a cgcgccaatg gtccccccat 360
cttc 364
```

<210> 8945
 <211> 357
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-E1

<400> 8945

```
ggagcacaag gaaggcatga tggagaagat caaggacaag atcagcggcg acggccacgg 60
cgacggcaag aaggacggcg agcacaagga gaagaaggac aagaagaaga agaaggacaa 120
gaagcacggc gagggccaca aggacgacga cggccacggc agcagcagca gcgacagcga 180
cagcgactga gccagctccg gccgcgtgca gtgcagggga gatgaacgcg tgggttaatt 240
tggagcgtgt ggtagcatat gtatgtaatg cttgacatgt ctcatggatc ttgtaatgta 300
ataaccggct gcactgcatg gtgcttgtaa taataacgtt aaggaatttc cattgggt 357
```

<210> 8946

<211> 135

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-E11

<400> 8946

```
tcaccatcgg ttgtacttta cttctctctg agtaccaacc tcatgttgca atgattgact 60
ggtgcttttt ggttccagtg aatgctttga cttgatgtg gcaactggca accatgtttc 120
ttttgatgtg tgtca 135
```

<210> 8947

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-E2

<400> 8947

```
gggtcgacgg gagcaaagaa cttctcctat ggaggggacc atagacctca gtgtcatatc 60
atcatcagat aaaataggtg taggtagtga tctgaatgta tcgtcaacca gcaccaactc 120
agagctaacc actgattcat agaaacgcct tgctggatcg aagtcgtctt tgaatatttc 180
atcagatgta ttcagctcag ctgcatctga ctgaacaagc attttgaaga catcctctga 240
agggaaatca atgatctgtg cttcttctaa aagaactgag caaggcaaat ctgaaaaggt 300
```


gccatcagggc ttgagaggggt acaatgctga gtttctctca agtagaagat tatcattgat 360
tctcacaaga tccatctcta ctgcagcctt aactgttatt ggtttatctg cttgatagtc 420
tgcacatggg gcatctttgg aaaca 445

<210> 8948
<211> 119
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-056-Q1-E1-E3
<400> 8948

agggggttttc ctccaagccg ggcaagtcca atgtccatgg caattggaat ttttcctcca 60
gaaaaatgaa tccggggaag aaaaaaaca gattcttccg tttttaacgg cgtttaacc 119

<210> 8949
<211> 297
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB104-056-Q1-E1-E4
<400> 8949

gtgcccctaa gagaccagct gaagtagctg gtcgagctcc acaaggcggc cgaacaggtc 60
atgaagggcc tcatagtctg gctgtggcct aaggaggcca tgcctgggag ctactttggc 120
ctgntgcggc ggctgggtga tgcgtgctcg tgggttgaag tcatcaagca ctccgcctgt 180
attgaaggtg cccgtcgggc ccttgcccgc gcaaagggtgc actggggcaa gatggatgcc 240
cagaagctcg tgacggaccc gccaccagag ggcaaggagc attacacgcc cgagatg 297

<210> 8950
<211> 401
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-056-Q1-E1-E5
<400> 8950

attcgccggt cgacggggcc caccaccaa caatgctcaa tgttcatcca gaggcagcat 60
caaccggctt cagtttagcag cagtagcgaa ggaatcactc aggetcagtt aacagcaagg 120

gatcgatcga tcgatcgggt tcagtaacgc gtagcctgca gtgcaatcgc tcgggttcag 180
taggcaaacg cctcgcctcg gttgtcatat ggatgatacg tctccaacgt atctataatt 240
ttttatgtat tcatgccatg tttataatat ttctacatga ttttggtatg atttgattag 300
aactaacgtt gatttcagta gaactatcgt ggtgttgttt ttgtgcagaa ataaaagttc 360
tcggaatgca ctgaaaatcg acggagattt tttctggaaa g 401

<210> 8951
<211> 416
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-E6

<400> 8951

acgggcacat aaatcctatt tgcgacaata agaacatcat taatccttcc cataggtttt 60
ttaatagtgg aatccgcaag atgcaaattt aaaagaacaa tcatcaaatt cacggaaacc 120
taacacatca cataaagttt ttcgaatcat ggaaacgcta gcacccaaat cacacaaagc 180
atggcactca taatctttta tcttaatcct aatagtaggt tcccactcat cataaagttt 240
tctagggata gaaacttcca attcaagctt ttgttcaaaa gattgcatca tagcatcaac 300
gatatgttta gtaaaagctt tgttttgatt ataagaatga ggagaattca acctggattg 360
caacaatgaa atacaatata ttaaagaaca attatcataa ttaaattcct tgaaat 416

<210> 8952
<211> 417
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-E8

<400> 8952

attcgcgggc cgacggggcg tactggaaaa gatgctcgaa ctagcacctt gcccgagacc 60
ctcaaaggaa gataaagggg ggaataatga ggtcgaaagc agggcccat cgctaccaat 120
tccaaccgag ggaatgagcg cctccgtgaa ggaggataac caaggggaag aatctgacct 180
tctctcgctt cgaggaatga agaggactgc ctctgaagat ccggaaacca aggcttccaa 240
acaggagaag aagtctccac cagagggttc tgccttgag ggtgcccttg ccgcacaaag 300

tccgcgcaag gatcagccct ccaatgagct gtaagtaatc aaaaagtact ttaatagtgg 360
 agatatacta ccttacctct gaggaaaata accgaagcat ttatcttgca gtttgga 417

<210> 8953
 <211> 401
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-E9

<400> 8953

cttaaaacta atcagttttt gaaaaccaca cacacacttg cctcggtacc ccacttcgtc 60
 atcaagtggg ttccatatca ttatctccct cgggcataag tgacaccga cgggggttttc 120
 caaaagttct ttgaaaatag tttgtctcct tcaccatgca tatacccgtc cctttttgca 180
 tagcgtctac tttagcatcc tatctactcc caccggcata accctcatag gaaggtaggg 240
 tcatgcccaa tgcaagtatc aacaaggaag taacgaaggc aaccaccaa agtggttacc 300
 acctcatcat gattccaatg caacaataat aaagtgtat atgacatgta taaaagggt 360
 ttcgtaaaca tgggtcaaaag gggctgcttg cctgttttaa c 401

<210> 8954
 <211> 439
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-056-Q1-E1-F1

<400> 8954

gggtcgacgg ggctatatca acacacaaag aaggcaagaa ctgtagtaag tacgtacgta 60
 ggtgtagcac ctcatcttgt actgcacacc atggcgataa tgaagaagaa cacgagctcc 120
 ctgagcttcg tcgtggccgc cctcatcgtg gtcatggctg ccacccttct cctctcctcg 180
 tgcgacgcc gcaaagagaa ggataagccc accgcttccc cagtgtcggg gaagtgttc 240
 tcgaggtttt tcccaaactg caccgagcag cgatgcaaga agttctgcgt ccagccactc 300
 cccggagccg tctgcatcga caaaaccac tgttgctgcc ctattgctta gttataagcg 360
 tcgttgaagc gatcgggcta agaaatagta ctggttanag atggcaacaa gcaatatttg 420

tacacttcga aatatatac

439

<210> 8955
<211> 399
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-056-Q1-E1-F10

<400> 8955

ctggcttggtt aaaacaggag tgacacctgc cgagaagctt ctgaatctat acgagacgaa 60
gtggcagcgc agcgtggacc ctgtgttcga ggagttgtta tattgatata tactgatatc 120
atatataact tcggtggacg ctggacaagg tggacagggg cttcaaattg tatccccata 180
caaaatcccg tccccaatc tacaagccac ctgaccaggg aaacctactc tccggtctcg 240
tggctgcgaa taattttgag ctcggaacac tctgtttgtg gcttgccgcc tttctttttt 300
cggctgtgtg gaccttttac agcttctgat ttttctcgca tctccaggga gccggaacan 360
acacctgttt tgtacgatcc ctttttcac ttttcctga 399

<210> 8956
<211> 403
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-F11

<400> 8956

aggggatgga caacttgctc cgtccctgat gggccgttcg aacgtgcgaa cctggaggaa 60
caccggttct ccatgacacg ggcaatccgc aactccggat gaagcctgtt ggctggcatt 120
ggcatggcac gccgcgcta ataaaacgtg atgccattaa atgccctctg cgttcctcct 180
tgggctgcct catcgacgta acggcatggc tttgtaactt tgcattgcc tccatgaaat 240
aacctgtaga tatccgcttg tgtgggtccg tttttgaga gatgtggcgc gagagaaacg 300
cggctcttaa tcaaaaattt ctgcctatg cagcgagtca tcaatcaggt taaagcccga 360
tgagggtttc tagttgaaga tggatagcaa aatctggatg ttc 403

<210> 8957
<211> 459

<212> DNA
 <213> *Triticum aestivum*
 <223> Clone ID: LIB104-056-Q1-E1-F2
 <400> 8957
 ccgggtcgac atgattatgt aattatgaac gggctcatgt actccctagc cggattgaaa 60
 atcatttatac atgacggacc ctttcgcttc agcccccgga tctgacagtc cggggtgtat 120
 ccgaataccc acacagttat gaaaacccgg ggtatgctg gaaaccatgt gtaggggtca 180
 taagtgttg aacagacaag taccctaacta gttaagttat attacatgga tagtaagaaa 240
 catcttccag atagaatagt tccgttaggg gttcctttct ttgggtacgc atgcatcgat 300
 gtgcatgtcc gaactgcgaa cagaagcgca gaaaacaaaa catctgggta tttttgttgt 360
 tctgaacgag aacatctttt gttcacccgac cgaatattcc cttagaacg ctagctttcg 420
 gcttcaccca gtctgaggtta cacatccggc tcaaccggc 459

<210> 8958
 <211> 398
 <212> DNA
 <213> *Triticum aestivum*
 <223> Clone ID: LIB104-056-Q1-E1-F3
 <400> 8958
 gggtcgaccg ggataaataa acagtgtact acaatgttat agccatataa tccgggaata 60
 acaatgtact gggaatcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaacg ggcgccccaa 120
 attgggactt ggccaactg gagagatgaa ggacccatcg tctctcaaa gccaaggatg 180
 ggtcttccca agcatcggag aattcatctg ttatgataag tacctggaag caaacttcaa 240
 agcagcagcg gcgaaggctg gccaccctga gtgggaattg cctgacgatg ctggagagta 300
 caacgacact cccgagaaaa cccaattctt caaggacaac ggaacatacc tcacagagaa 360
 agggaagttt ttcctgtcat ggtactccaa caaactga 398

<210> 8959
 <211> 432
 <212> DNA
 <213> *Triticum aestivum*
 <223> unsure at all n locations

<223> Clone ID: LIB104-056-Q1-E1-F4

<400> 8959

gtccgttttag tattcctttt ctgcaatact caaaaacaaa gagaaaacag aaactggcac 60
tgggctctag gttaataggt tagtcccaaa aatcatataa aatagcatat aaaacatcct 120
agatggataa tataatagca tggaacaatc aaaaattata gatacgttag agacgtatca 180
agcatcccca agcttaattc ctgcgcgtcc tcgagtaggt aaatgataaa aacagaattt 240
ttgatgtgga atgctaccta acataatttt caatgtaatt ttccttattg tggcgtgaat 300
gttcagatct aaaagattca agataaaagt ttaatattga cataaaaata ataatacttc 360
aagcatacta accaagcaat tatgtcntat caaaataaca tagccaaaga aagctcatcc 420
ctacaacatc at 432

<210> 8960

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-F6

<400> 8960

gactgctttc tttgacctgt ctgagtttac caattaaagc ttacccttcg tgtttcttgc 60
cggtcagtgt tgtcgtttac aagggttggt atgtctatcc tctgctaccc gcctccatta 120
taaaccctcc actagactaa ctgaaataaa aattattaag catgatccgt ttatcagttg 180
aactgttaga actaataacc aaaccatgct aacatcaatt ataaaagaaa ataatagtgg 240
tgatttttgt accaggaaaa aaattacctt ggaggataat tttggttgtc aaaaagttgt 300
cttgtcgttc aaccaaccat gaagttatgc caatttaaga ggatagaatg gaactaacgc 360
aaaatgtact cattagattt tgaaaagaac atgatccctt tactgtatta tttagttaat 420
tatata 426

<210> 8961

<211> 436

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-056-Q1-E1-F9

<400> 8961

acggacacct ccagcccgac gagacatggg accgacaagt ggagcgcgtt ttgacaggca 60
cctgtactat atagaggtga tgatgtgtgt gtttgtgcac cttactgcat atatatatac 120
acgtacaagg aagggcaaga catttttgct tgggagggga gggagcttgc ttgtgtgttt 180
gctttgcgtt tgttgctgtt tatacctagg gtcgggctcg gtcggatgtt ggttcaattg 240
cacatgtttg gctggatgaa tcgtgcttat aaacattctt tataccttgt attgtacaag 300
ttagtgtcag tcggtcgatc actttcagcg gatattggac aatttctgag ctttttctcc 360
atgtattggc atttcttttc tgttttcctt ctttttcttt ctttctttct ttctcctgn 420
tgtacacgtg ctcttc 436

<210> 8962

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-G10

<400> 8962

cgggttctct tacttataca aatcattcat gaatttcttg taggatcaaa atggccatgg 60
caaaccttca aagaatttaa tttccaaaac caaagggtgaa ccaatacaag gatgaaggac 120
aaataattca aatcaagata ttcaattcat tcaaacaatt ttctcatagg atataagtga 180
agcacaagag taaatgacaa actactccaa aaagatataa gtgaagatca agcgagtagt 240
taagtaaagg ggtagcta at tgaggactct ctcttattta aaaactttca aatctaagta 300
ttttattaaa acagcaagca aaatgaaaac aaaatgacat tccaaggata gcacacatca 360
tgtgaagaag cagaacttag gctcaaccga ggctaaccga taattttt 408

<210> 8963

<211> 386

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-G12

<400> 8963

acgggcagggt gcaccccgga gacgcgcca accccaacta cttcgaccgc cgatacctgc 60

tgtcaatgta cggcaacccc ctggggggacc tgctcaaggg ggcctccctc tggacaaggg 120
 ccggcaagga caaccgcaag ggccccgtct ccttgctcta ccgcgcctcc ggcttgctcg 180
 tccccggcct cgctccccc agcccgcgcg actacgtcaa cgccgtccgc ctcggccgta 240
 tcgcgccccaa gtcactcctc taaaagtcta actcagacct actgtgtgtg tacgaccaca 300
 agagagagaa ttggtgatga ataagttggt gtttcggttg tgcgtgtcg tgcgtgtcg 360
 tatcgtgtgt gtgctatatt aagcct 386

<210> 8964
 <211> 240
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-056-Q1-E1-G2
 <400> 8964

cccggtcga cgggcgtaca gagtataccg gagatcgggg tgatatagat tgttaggtcc 60
 gcagtttgcc acttggtaat gtcctcccc taaatagcgc tgcattgcca tgtgtgcctt 120
 gctctcagca gggaagttga gttgttgat gttgtgtagc agaacgatgc tttctgcctg 180
 tggaagtaaa acataaagat tgcctatgtg tcatgactca aatggtattg tcacctactc 240

<210> 8965
 <211> 280
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB104-056-Q1-E1-G4

<400> 8965
 gaagaagaat caaccgagaa cgtcaaggtc atctacgcc gcgccaacca ttacccaag 60
 gattacaatg ccagaacaa ggatttggtt caccttaacc ttgaggcccg gatgaagggt 120
 gggttctatg tcagtctga ggctaagctg ctgtttgttg tcagaatcag aggtatcaat 180
 gccatgcacc caaagaccaa gaagatcttg cagctgttgc gtttgagaca gatattcaat 240
 ggagtgttcc tgaangttaa caaggccacc atcaacatgc 280

<210> 8966

<211> 430
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-G5

<400> 8966

aattcgcggg tgcacgggga cgaccacccc cttggcgggc gccttctcag tcttctttgc 60
 cgggcgggggt cttccttcct tggtttcctt taatccacct tctgcaggct cgacggcgag 120
 cttggcttcg acttctgtg ctaagcctcg cccctcatcc gtatcaaccg cgatcgtgac 180
 ctctcgctcc atggagtcgc cgttgtcacg cacctttgca tcagggtgctt gttcctccgc 240
 ctcggtgaag ggcattgtctt gggatgatgc acggttcttc tcctcctttg agcaattggt 300
 attgtcatga acgggtgctg ccatgacctg ctgaacattc gatcgaaaag tgagacatca 360
 aagtgactaa catccgacat caaaccaaca atctaccacg tactaagtcc aacagcccat 420
 gttcatatgc 430

<210> 8967
 <211> 454
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-056-Q1-E1-G9

<400> 8967

tagccgtcaa aaattctagg gtcgacgggg gaaaagaggg agcaaagcaa ccgtgagtac 60
 tcatccaaag tactcgcaag caaggatcta cactacatat gcatgggtat atgtgtaaag 120
 aggcaatatc ggtggactga actgcagaat gccagaataa tagggggata gctagtccta 180
 tcgaagacta cgcttctggc agcctccgtc ttgcagcata tagaagagag tagattgaag 240
 tcctccaagt agcatcgcat agcataatcc taccgggga tccttccttc gttgccctat 300
 ggaaaagcga tcaccgggtt gtctgtggaa cttgtctggg tgtgttttat taagtatccg 360
 gttctagttg tcataaggtc aagggtacaac tctgggtcgt ccttttaccg anggacacaa 420
 ctattcgaat agataaactt ccctgcaaag gtgc 454

<210> 8968
 <211> 287

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-056-Q1-E1-H10

 <400> 8968

 catggcgaaa gccgggataa gatggccaag atggccatag aattaaaagc cgccgtttga 60
 ccgttgccgg gttcttgga aaggaaaacc taaccaaagc atcggacttg agaaagctgt 120
 tgcgacgagg aaagacatcc gctctgctat gagggcgaag aaggaggagc tgcgggaagc 180
 cggggatatg gtagctggga aatcgtttat gttgctggagg aagttcggag attcacggta 240
 tgccactctg gatcggctgt ggagttcgga gaatgtgtat atggatt 287

<210> 8969
 <211> 383
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB104-056-Q1-E1-H11

<400> 8969

 tatcaaatct anaaaaaatt ttaattcgga tagtccaaac caaaattacc cccggaaggc 60
 cggaaccaa tacaaccaa attggtgggt ttttaaaca tcccggaaaa tcaaaccgcc 120
 acaaaaagg gccaatccc caagccaagg aaatgacgaa cccaccaa acgaacaccg 180
 aagtcaaaag actttccac aagaagtcaa aacagtaa ac tcaattcatg tgatagtacg 240
 gaaaaccaac acggcactcg ctaagacaag tgcgcacgg tccaccccag cggaacaccg 300
 atattggatg taaaaccaa tcaatttcga ccatctggat acaacanaca gaccgtcaag 360
 taaaaaaaaa aagcgccgc tct 383

<210> 8970
 <211> 397
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-056-Q1-E1-H12

<400> 8970

 tttagctcgg atatgtcaaa tccacagtac ctccggaagg cctgcaaacc ataccaacca 60

aaattgttgg gtttttaaac agtccggcag actcaaggcc ggacataagg ggctcgatgc 120
 gccaaagcgag gacaatgacg aacccccacca gcagagcacc ggaggtcaaa agactttccc 180
 acaacaagtc aaaacagtaa actcccttca tgtgaggcta tgggaaacta atatggaact 240
 cgcatatgag caagtgtctc attgtctaca ccatgggatc atcgatattg catctaaaca 300
 tgaacaatth tccaacaacg ggcattgactg caatgatttt actataaatt ctcttgaggt 360
 ccactgtgag atcaatacgc aaaacctcaa ccttggg 397

<210> 8971
 <211> 172
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-H2

<400> 8971
 gaaccacaag aaagacggcg agcacaataa ggacggggag cacaaggagg gcatgatgga 60
 aaaaatcaag gacaatatca gcggcgacgg ccacggcgac ggcaaaaagg acggcgacca 120
 aaaaaaaaaa aaaccatcaa aaccaaatt taaaaaaaaa aaccgcccc cc 172

<210> 8972
 <211> 400
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-056-Q1-E1-H3

<400> 8972
 cgggtcgacg gcggatcgag aaaaagacgt acgactactt cctctacgtt gtgtcaacgc 60
 ttccgttgca accaacaagg gtacttaaat tatgcccttc cccccgttgc aaggcaccac 120
 aatgatcttg cttgtgcata ggaaattttt tgaaattaca actttcccaa acattgtcct 180
 gatccagtca ggcagccgga ccatcgggtt ttggccatga gctgggacca ctgggaagcg 240
 gcccgccacg cgaccatga gaccatgcc aaggccgtga tcaactattt ctgggtgagc 300
 tctcttcaga agcacaagtc cattctagtt tcatgaatga tttaactcat ggcttcttcc 360
 attcttgttt catgcatgat ttagaaaatt ctatcgggtt 400

<210> 8973

<211> 288
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-056-Q1-E1-H4

 <400> 8973

 gacgggccaa aagaagatgg aagcgggtgc ggagggcaag gcccatatac cctgaaataa 60
 gaaagacggc cctgcccctg atgtttggca ggaaaggggc gtgtgttagc tgatgtaatg 120
 ttacacogta gaatcatcgt tcgtgacgat aataatgatc cgaccataac tcctctaata 180
 tcattgttct gttgtcattg tgtagtttac tctgtatctg aactttgttt tactcagcga 240
 aaccgtactg ctatgatgaa tgttttcaaa aaaaaaaaaat ttttggtt 288

<210> 8974
 <211> 356
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB104-057-Q1-E1-A1

 <400> 8974

 cgggaggaag gaagaaaaaa aatcgggtgtt ggtgggacga aatttaactg gtttaaataa 60
 agaggagaaa tgccggcagc tggaattttg gacttgaaaa tgagcaaata ttagagacct 120
 attctgcaca actccaaaag tcctgaaact tcacggagat tagttttgga atatattaaa 180
 aatactgggc gaagaaagca ccagatgggg accaccagtc agccacgagg gtgaagagca 240
 cgccctagcc cctggggcgc cccctacct cgtgggcccc ctggcagtc cgcactccca 300
 tcttctgcta tatgggtgtct ttttccctgn aaaaaatcat agagaagctt ttggga 356

<210> 8975
 <211> 447
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-057-Q1-E1-A10

 <400> 8975

 cggggccgac gggatgcaca aaattttgca ttcagtgcac cccacagaat ttttccgtcg 60
 tttatgtgca tgtacacatc acacagacgg tcagcaagaa cactcagaat gcatcccaca 120

aacatagtat tggcttctctg gaattttctc cgatcttcgt cggtcattcc ctctggagca 180
tcaacactag cgtggaaaac tttcagagca gtaagccaga gtgttgctctt cacctgccac 240
ctcttaaagt gcacaccgat aaacttatcc ggcattcagt catcagcgaa tccagccata 300
gttaactcag gaaattgcct agaattaggt ttttggattg ttggaatattc aggcaagttc 360
atgattaatt ccagtaaata attcatgact agaagagata ctagcatgca ataattctagc 420
aaactagaag accagcagga catgcat 447

<210> 8976
<211> 411
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-057-Q1-E1-A11
<400> 8976

cgggccgacg gatgactcaa acgatagacg gcggcttcat ccacgctccg gtcccttgag 60
tcgagtcgaa agcagtgatg ctgtgtctag ttctgaaaca tcgattgtct catgttgtaa 120
ttaaacttta atgaacttgt agtatgtctc tttggtttcg agagtcgttc aacttagatg 180
taatcgatgc tattaatgtc ttgcttttct cttccgatcg ttctgttgca tacttatata 240
ttgcttatgt attgtctgtg aattgggtact aacgtttcgt ttggctactg catagcgatg 300
ccgtgggatg tcgtgtacaa gggtaaggct cccggagtct acgacgactg ggaggagtgt 360
cggagacagg ttcaccgatt cagcggtaac aattacaaag ggtacgccac t 411

<210> 8977
<211> 427
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-057-Q1-E1-A12
<400> 8977

ccgggtcgac gggagcatcg agccgctctg gggcggcgtc gtcattaccg ccttcgactg 60
cttcattctt ctattcctgg agaactatgg tgtgagaaaa ttggaagcgt ttttcggcgt 120
cttgattgca accatggcta tatcatttgc gatcatgttt ggtgaaacga agcctagtgg 180
aaaggagctt ctgatcggta attctctgtc tgatatgttg gcagatgctt ttgtttctga 240

tgcactcttg agacgtagaa gaattttattc agtatttttc ataattaggt ttggtggttc 300
 caaagctaag ctcaaagacc atcaaacagg cggttggaat tgtgggctgc atcatcatgc 360
 cccataatgt tttcttgcac tcagcgctag tgcagtcag gaagattgac acaaaaaaga 420
 aatcccg 427

<210> 8978
 <211> 216
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-A3

<400> 8978

acggggaagt ggaagacctt aggtttatta atctgtgaga ggtgtaggat gaagatggtc 60
 tctctcaaac gaacctgcaa tcaaatacaa gaaatctctt gtgtcccca cacacctaat 120
 acaatggcaa attgtacagg tgcactagtt cggcgaagag atgggtgataa aagtgttaata 180
 tggatggtag aaatacatct ttataatctg aataaa 216

<210> 8979
 <211> 322
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-A4

<400> 8979

gggtccacgg gccatgataa aataagctcg agcacacatc aaatcctaata cacatccaca 60
 taagatgcat gacaccaagc taacagggtta tttccagaga catgtctgtg atatactcgc 120
 acgcaacgtc caggatcgat cattctgtga tatgaacatg cattgccaca tagctttgca 180
 tgatggtagc atatctatga tgatgtttcc agagcttgtc cgtttgtgac gtcgctgtga 240
 tgcaagttca atgtccaacg cggtagactg ccggaggcat tcatataaac tcaggtcgtt 300
 gttcaagttt cgagctgcaa ta 322

<210> 8980
 <211> 379
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-A5

<400> 8980

ggaagcagca gatcgccagc gtggcctaca acggcagcct tggacaagcc aacaatccct 60
tcgaaacgaa cgaccctttc gccatgtcca acagctttgc gcccccttcc aacatccggc 120
tggcaatggg gaccagcag cagcaatact tccagggtca acaacatcag cagcaatact 180
actaccagcc tcagctccaa tactaccagc cccagctgca gcagcagcat cagcagcagt 240
atttccaggc tcagcagcat cagcaccagt atttccagca gcagccccag tattgtgtgc 300
atccggccgg aattacaat ccgtttggg accctttcac tgaccttgta actctggctg 360
ctccttcaaa acaaggcga 379

<210> 8981

<211> 315

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-A7

<400> 8981

gggtcgacgg gggatttaat cttactggg tatgactatg taaggctctg tgtgaataat 60
taataaagtg gttgtatgca tagtccagat gcagaggccg ggttcctcct ttttcaaaaa 120
aaagaaagaa taatagacag gcaccagcaa ggtcaagtga aagcatgcat ctgcagcagg 180
tgatcagcta agacaactat ttgcgtacca atcaatgtaa aaaatacaac ctttaatttg 240
ttcattgtag caatgatacg gtgctagttt aaagtaattg taccagaaaa ttagacaaaa 300
gacatcccaa gtttt 315

<210> 8982

<211> 273

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-B1

<400> 8982

gacgggctaa cccaacttct ggcaacagga gtgctacgta ccattagtta gttgagagat 60
gtactatccg accgaggcat tgtatttgta acctaaagag tacaggggga agtggaaaca 120

cgcgcatgat ttggcattcg tcggtaaagtc attggaaatg ctcttatgtg agatactatg 180
gaggcctgct tgatgaccaa cacaaaagtg atcgccctcca accttcttct ggttggttga 240
ttaacacaca agaaaaattc tcattgaaac aaa 273

<210> 8983
<211> 405
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-057-Q1-E1-B12
<400> 8983

ccgggtcgac agtaggcttc atataaatgc aataaatcca ttagctgatg cgtcctatca 60
ttagctctta tcaataattc tattaaattt tgaagctgac ctgtccgccc gttggctttg 120
gttgccacaa caacggattg cttgggatac taataggatg gcttgggatt tgggagtagc 180
attcccaaac gtgttactat catatttggc ttgcagtggg tgtgcaggag gaagatgttg 240
cttgattgga gtccctcgga gcctagcagt gctgctcage cctatgcatt ccattggctg 300
cctcggtagg taattgggat cctcacgcta ccaatttggg catccctagg aaacatcaag 360
gagatgatga gactgcatct tgagaagaag cattatttac aactc 405

<210> 8984
<211> 444
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-057-Q1-E1-B2
<400> 8984

gttggtgtaa ggaatacatc acctccacca tgtgacacat cgccccgag agtggctaca 60
tcatctgagt tgatcataag aggtaatgac aaaggtagt atcttccatc tctacatgag 120
aatgatgaat gccttgtaa tttgaatgca ccatctgatg agctaccac tactttgatc 180
acaccaccta ttttagagga ctacgttgat aatttgactt tgccatgtga tcaaacaact 240
gaaataccaa caattttgag tgcaccatt gaattaacta ttgatgcaa agaaccaatg 300
tttaatcatt ttgatatgac ctctaattt ggtgatgatt ctgtgttgaa tgacttattg 360
catgtttgct tatttaagca tgtttagca tgtaaatttg atgcaagtaa ggtttattca 420

ccaatgttgg gatggtttaa tgat

444

<210> 8985
<211> 438
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-B3

<400> 8985

gggtcgacgg ggaaattaat atttgctctt tagttttcca caatcatcct tgctgtacac 60
accttttggg agaatccac ttgattggaa tttattagaa tactatatgt gcttcactta 120
tatcttttga gctagatagt ttttgctcta gtgcttcact tatactcttt agagcacggc 180
ggtggtctaa ttttgtagaa attgctagtc tctcactctt cacttatatt attttgacag 240
tctcttagaa cagcatgcta tttgctatgg ttataaaatt ggtgctagaa tggtaggcat 300
ccaagtggg tataataaaa actatcatag gaagtgaatt ggatgctatg atcaatttga 360
tacttgataa ttgttctgag atatggaggt agtgatatta aagtcatgct agttgggtga 420
ttatgaattt aaagaatg 438

<210> 8986
<211> 453
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-B4

<400> 8986

gggtccaggc gcatagtcaa cactaagtca ctcatacaac aacaagggtg gctataaggt 60
tggctataag tgtttttttt tactcctctc caactctttc ctctactcc ctccgttcca 120
taatataaga atgtttttga caatggtgta gtgccaaaaa cggtcttatg ggacacatgg 180
agtactagta tttattgcat tttccaagga gtgacctctt ccaatgaaat ggtgtggcta 240
agtttgctta atttaattag ctatagactc aaaattgtct tttcacctag gtacacgcgc 300
ttagcactgt ttcttcttg ggtcaccaaa ctagtctctc tcttcttgat taacttgcca 360
cgtcagactt tatgcctatg tggcaagctt aagcacctgt aggagcaagt aaaaataagt 420
acaatagtgc gctttacatg gcatttttgc ata 453

<210> 8987
 <211> 377
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-B6

<400> 8987

```
gggtcgacgg gcagtgatga atgcattcga gttgatctct acctcccagg gcctcaatct 60
tggcacactt tttgagaagc aaacggattc tgtaaacgt gaaacacggg ttgcgtcgag 120
gcttccagca aacgaaatat tgtcgaaaat tgaagcagca gcaggacca tgggcttcaa 180
tgtacagaag cgcaactaca agctcaagtt gcaaggagag aatcctggaa ggaaaggcca 240
gctggcaatt gcaacagagg tttttgaagt gacacctca ctctacatgg tggagctccg 300
caagtccaat ggcgataccc tcgaattcca caagttttta ccatagtatc tcgaatggcc 360
tgaaggacgt catgtgg 377
```

<210> 8988
 <211> 450
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-B8

<400> 8988

```
gggtcgacgg gtatattgta cgggtgggcca ggtctgtggt ggaggaacac ctctttaac 60
gattcaaac agggccgtgg ctcatgccgt cattcccgtc ctgatccgtg gctcgtttag 120
acctcagtag ccgagtaaata ggagggatgg gttgctgggc agagttctct cctacctccg 180
gctcctggtt ttttctatta tcgagtgagg ctagatgggc ggcggagctt ctattcgaag 240
gaaacaaagg ctagcgcaga agatggaatt tctgatgcaa tcgattaaaa gaaccaccgt 300
gctggaggac gttaacgatg gcaacgtact catggagcca ctacactgcc agtggtcgca 360
accgttgtag acccgctgcc gcccatggcg gcagtgagtg cggaaggcca gatctgtgcg 420
gctgatggca tgggtcgatac tgaaatcgat 450
```

<210> 8989
 <211> 389

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-057-Q1-E1-B9

 <400> 8989

 gacggaacca gaagtattcg aaagttatag attgctacag actgttctgt ttttgacaga 60
 ttctgttttt cgtgtgttgt ttgcttattt tgatgcatct atggctagta ccggtaggta 120
 tgaaccatag agaaggtgga atacagtagg tttaacacca atataaataa agaatgagtt 180
 cattacagta ccttatgtgg tggtttttct ttcttgcaact aacggagctt atgagatttc 240
 ctgttgagtt ttgtgttgtg aagttttcaa gttttgggta aagatttgat ggactataga 300
 ataaggagtg gaaagagcct aagcttgggg atgcccattg caccccaaga tattcaagga 360
 taaccaaag cctaagcttg gggaatgcc 389

<210> 8990
 <211> 448
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-057-Q1-E1-C1

 <400> 8990

 gtcgacggga caacacctat acaaatagta aaacaaattt ggcacaaat caatgattac 60
 atgccgtgaa ataggattag gaatttatgg ctatttattt atacatatcc agatattatg 120
 gtttgatttt taagcacact cgtctatgta cagaccaatc ttgaagaaaa taatggcaca 180
 aacatatgta ggtcattcaa aatcaattgt catgccctgg ctaggaatta ttagcacaaa 240
 cactaatcct agtcggatta ctagcagaaa tcatttgacac agatgaaaca actaatcact 300
 tatcacctgt accattcaaa caatcaatac actacacgga tctaacaaaa cttactcaga 360
 tttcatggat tgggagaaca taaccatagg atttctattc caaaaaaggg aagtacgagt 420
 aaccacggaa accccatgat ctatttga 448

<210> 8991
 <211> 252
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations

<223> Clone ID: LIB104-057-Q1-E1-C10

<400> 8991

agtgactctt aacatagcct ccccggaac ggtgccagaa aagagcttga tgtctactac 60
acaaccttca tctttagtagac gttgttgggc ctacaagtgc acaggtttgt aggacagtaa 120
caaatttccc tcaagtggat gacctaaggt ttatcaatcc gtgggaggcg tatgatgaag 180
atggtctctc tcaagcaacc ctgcaaccaa ataacaaaga gtctcttctg tncccaacac 240
atccaatagc at 252

<210> 8992

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-C11

<400> 8992

cgggccgacg ggggggatcaa tcagtcgagg gcgatgcgga tgaatcgggg gcctgccgat 60
ccactcgacg cggtcgaacc gcctgcgtgg aaagggtgag acgcgggcgg taatggccgg 120
cgcatcatta cgacttctga ttttccatat ttttcatagg gaacagggga gctttggacc 180
ttgtgtctag actacaatct aaccatcaat agccagcagc ttcattccgg taacttgaa 240
ggtactcctg gaccatgac catcccttgg gaaaacgttt gccgaatcaa aatgtggctc 300
ctctgatttg cggcaattag aggccacctc aaggtagtga accttctgct gggttgggtg 360
aactacaaa ggccaacgga acaacaattg cacataccct ttattttcct ggtacaggca 420
atctccagac atgac 435

<210> 8993

<211> 267

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-C12

<400> 8993

catatatcaa tctttacctc cgaaccattc cggagatcct cgttatgtcc gtgatcacat 60
ccgggactcc gaacaacatt tggtgaccaa catacataac tcatataata ttatatcgct 120

aacgaacgtt aagcgtgagg accctacggg ttccagaact atgtatacat gaccgagaca 180
 cctcccaata gcggaacctg gatgcccaca ttggtccca catattctat gaagatcttt 240
 attggtcgaa ccttatgaca acatatg 267

<210> 8994
 <211> 451
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-057-Q1-E1-C2

<400> 8994

gggtccaggc gacactcaaa gttaagtatt tattagtact ctcttcaaaa agggccgacc 60
 atgtccaatg gctacatcnc gtgctctgtc attgagtaaa tgcactattc acgtgccatc 120
 gaggagaaaa aatattgagt agtactaggt gccatcgaag tgcacgactc acttacgcat 180
 tgcatatccc cattttcttg gcatgacacg ccaccttgat gctagatgtc ccgctgtca 240
 tgggtggcata tagtatgatt ttgtaaaatc gaggcataata gatgtcccgc gtgtcggcaa 300
 aaggatgaac aaagctcatg tcttaaacga aagagtggaa gaacatagat tcccgacggc 360
 cgagaaagag caagaaacct cggggtggag cctctgcact cataatattt tatattattc 420
 agcgatataa aatcaaccaa atctctccac g 451

<210> 8995
 <211> 277
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-C3

<400> 8995

agtcgtgata gagttagaag ttgtaaatat gcattgttgt atcgcgacgt gaatgaaata 60
 aatgaaataa tgctcttggt caaaaatatc ataaattaga atgtgaggta gtattaatgt 120
 aaagtataaa actgaaaaaa taactgtagt tcagccgatt taaaggatgt aagggtattt 180
 acctttgcat gccacgtaat aactcttcta aagtgtcatc taatttcagt tcatgggcgt 240
 tctttttaca gggtattaac tgggaaaccc ctggctt 277

<210> 8996
 <211> 256
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-057-Q1-E1-C6

 <400> 8996

 ggggttgaact aacgtgagtc gtaatatagt tttgcttgct gtttgaatat aatagcaaga 60
 tcttaaagta ttagatgtta gagagtcttc acatagttgc ataattattc gaaactcatt 120
 gatgctcact tatatctggt cggagtatgt agttatctgc tccactgcgt gacttacaac 180
 tttctagctc acggtggcgg ttttattttg aatgatctac atatctcgcg tgattaactt 240
 atgatattgt gagagt 256

<210> 8997
 <211> 78
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-057-Q1-E1-C7

 <400> 8997

 taggcttatg agtcgcgagg tcttgtgtgc aatggcagaa gccgccgtgg accgctccaa 60
 tgggcagctc caagtgtt 78

<210> 8998
 <211> 434
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB104-057-Q1-E1-D1

 <400> 8998

 agcaccaaga tgacttgcca gggaaganga aaaagatccc aatgtcttgt ttgcaagggg 60
 aaaacccgcc ttggacggcc caatggggca cccaagggg ttgcaaggaa ccgattttgt 120
 actgatcagc ttctcaagta aatagcagaa agatcaccct cccttaagag cctcagcctt 180
 gactattgca atgtcaccaa cgaagcattc actgagctga taatcaagct tcctctgctc 240
 gaagaacttc tcatttcctt atgtccattt gttgatgggt acgcatatga ggtcaccagc 300

agagcatgtg cgcagctgaa gcgtctcatg ttgccgcaag ggctcgtatgg ggggtataaga 360
gatggggcac ttggnatcga gatgatgcac gagctgcgat accttactct cgtcaatagt 420
aatatcacga caga 434

<210> 8999
<211> 418
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-057-Q1-E1-D10
<400> 8999

tggaaaatca aagcagaagt caaaaaggat ggtagagagt gacagtgaaa ctggaaatgc 60
gagtgatggc agctctgagg atgccagaag aaagcggcaa cgccatggaa ggaaatctaa 120
ggccacatct caaatctctg ctgaagatca cacagcagta gctgctctga aggatgccac 180
ttcaactcag gaaaagattg gaacaccaag gagtctggca caagaagaca aatctccact 240
ggagaatggc gagatgcgca caaatgggtg tactgactcc aaatctgaaa ggaaggccgg 300
tatcatgcct gttctaactg gcaaccgaag caaatctagg agccagagca cgagtgctaa 360
tcaactccatg agcaagagca tgagtgtgaag tcccagaagc ccaatcaaaa ggtcaaac 418

<210> 9000
<211> 425
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-057-Q1-E1-D11
<400> 9000

gggacacacg aaattcactc tcattagttg cagctcgttg taactatagt ccttcaatac 60
cttggcacgc atcgtctcca tatatttgat tactcgagcc gctgcaatgt ccaactgcac 120
ttctgtagaa ttgtatgaat agccagacaa tgacattgct tcataatcac gtcgctgatg 180
ttgtgtgctc ggacgaacct ttaatgtgac tgctaattct tccccaaact tgtagcagaa 240
gaacatcagt ggtgggagct gcaacttaat gaacattaca tcaagcatga acttgtctgt 300
aatgtcaacg acccccatgc cagtttctgt cgatatagag aacgtgcaa tgtctgaaaa 360
tggttgtagt tgcactcatg cactgcaaag catatgtaag tggcagaaat gatgaattag 420

taact 425

<210> 9001
<211> 433
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-057-Q1-E1-D12

<400> 9001

ccgggcccgcac gggtaggttt attagcacao tatatcagat gaatgtcttt tctagggcta 60
gaggaggtaa tgttaattgg tttgcttggg aagtgcctat attaattggg agtcaaagtt 120
aaccggcatt tagtaaagca atgtttagg actgggaaat tttctttgat ctaatgtgct 180
aaagccagtt cgggtttgtg ctaaactttt gattattctt tcagtgaat gctgaacttt 240
tgatggtaaa tgtttttaa ttgggtcaagc acataagaag gcaaactcaa gtaatgctat 300
ttgattattt tgtgaaactt tgcagctagg ccaactggcc aagccataga caaagaagtg 360
caagtatatc aggagatcta ngangacata cctctcgact ttcttcagca caattaccca 420
cgagagagaa aaa 433

<210> 9002
<211> 431
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-D2

<400> 9002

gggtccacgg caaggtgtga tccgaggtgt tcttctacct ggccgaaaac aatgttcttt 60
ttgagggcat ctttctgaag cccagcatgg ttacccttgg tgctgagcac aaggagaagg 120
cttctccaga agccattgcg aagaacaccc tcacaatgct gaggaggaga gtaccacctg 180
ctgtccctgg aatcatgttc ctttctggcg ggcagtccga actggaggcg acgatgaacc 240
tgaacgcgat gaaccagtcc gccaacccgt ggcacgtgtc cttctcgtac gcccgggccc 300
tccagaactc ggtgctgaag acatggcagg ggcagcccga gaacatcgag gcggcgcaga 360
agggcctgct ggtccgcgcc aaggccaact cgttggcgca gctcggcagc tacacgggcg 420
agggcgagag c 431

<210> 9003
 <211> 454
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-057-Q1-E1-D3

 <400> 9003

 ggggtccacga cattgtcata ctggggagcg tatttctaca caatatgttc ccctttgaga 60
 ggttcatggg agtcctaaag aaatatgtcc ttaaccacgc taggccagaa ggaagcatct 120
 ccatgggcca tcaaacagag gatgttatcg ggttttgtgt tgacttcatt cctggcctta 180
 acaagattgg tctcccaaaa tcgcggtatg aggggagact gactggaaaa ggcactcttg 240
 gaagagactc aataatatgc agggactgat attctcggtc tcaagcacac tacatagtcc 300
 tacagaactc taccttgggtg accccgtatg tcaatgaaca caagaacagt ctgcgctcca 360
 aacacccgga gcaatgcgac gactggatta catgtgaaca catcaggact ttcagcagtt 420
 ggttggaac acgtctcaga ggtgacaaca ctgt 454

<210> 9004
 <211> 405
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB104-057-Q1-E1-D4

 <400> 9004

 ggggtccagnc gggcatttta gtcagttgca aagcttgctc tagagcatga gcttggttaag 60
 gcaccaactt caaacaattt caaattccgg tccccaaaac gaacaaaaaa ggcgggttttc 120
 aagccaacca ataactgtcc ttggccctcc aaaatttgcc caacgggtgt ggtaataatc 180
 tttttaagtt gatcctggca ttctttttga gtttacaatg tacactaggg tggctatgca 240
 gccactcaat tcactttttg taaccctgta agatagttag caactatggg ttcggttcac 300
 ggagtaccga tgagcagccc gccctgtttc ttgagtcggc aataagagtg cacaatggta 360
 ctactgatac aatttgggat atatatggcc taagcctcga ttata 405

<210> 9005

<211> 269
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-057-Q1-E1-D6

 <400> 9005

 gacggggaaa cctaagtaca acatcaatat ggctaaccta gacgactagg ttccccatcc 60
 aggttcaagt cctaaacttg acatgggtgc tctcgtagaa ggtgtgtgcg cgtgttgtga 120
 gcgtctgcgt ctgcattgtg tttctaaaga aaaaaaaaaa aaaaaaaaaa aaaagaaaaa 180
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaata aaaaaaaaaa aaaataaaat 240
 aaaaaacaaa aaaaaactta aacacaaaa 269

<210> 9006
 <211> 428
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB104-057-Q1-E1-D7

 <400> 9006

 gtcgacgggg atatgcaacg cggctacttt gggccctgcg gcaccatcgt ctccgtcaag 60
 gtgataaatg atcagagaat caggggcaag tggttatgggt ttgttactta cactcaacat 120
 agggctgctc agcgtgctat cttggagatg gatggcaagc aaataggtaa tcgtgctgtg 180
 agagtaaagtg aagtgcgtac aagaggcaac acccgtgatt ttgggcgtga tggcttccga 240
 cgagatcctg taagagatgg aagggatgta tactgggacc gaagggatan ggagaggagt 300
 tatgatcgcc accgggatag agattcctac catgacaggg atagtgatag acctcgtgac 360
 catgatagag acagatatga tgaacgtggg ggatttgacc atgacatgga ctattccatg 420
 gatcgaga 428

<210> 9007
 <211> 420
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-057-Q1-E1-D8

 <400> 9007

gtgcatcgca tgatggcaga gatcgacacc gacggtgacg gcttcatcga cttcagcgag 60
 ttcattctcct tctgcaacgc caaccggggg ctcatgaagg acgtcgccaa ggtcttctga 120
 atcagttcat ttcacctcag ccgtccgttc caggagccga tccatctacg tacggcttcg 180
 tatatcaatt tcatgcaact acctactccg gtcccgatcc agcctcagct tcacctgagg 240
 ccggccctaa atttgtttga tcaattcttt tgctactagt agtaactagt gatgatcact 300
 gttgcatcat ttatttattt attttatata tcatcacaag tttcctgtga ttcttttctt 360
 tctatacctt tttgtcgatc gtcggctcca gctcgatcaa acgatccatg ctgctaattg 420

<210> 9008
 <211> 432
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-057-Q1-E1-E1
 <400> 9008

tgttgtgcaa ggactctgga tcgaagcctg cctttgtcgg tagttttttt tgtcgcccaa 60
 caggaaacaa caagcaacat gtaggtgggc cggcccaggc ggaggactgc ctttgcaag 120
 ccccgccatt ctgccacata ggagatgcc acgagtgtc ctagtcggcg ctttatctgg 180
 cgcccactag cctgcaggaa tgggttgccc catttgcaatt gggtttgtga gtcaacagat 240
 gaccagtcaa ccattgactt ttgaaaaata tgttttttta ttctaaaaca acaaagaaac 300
 tatgatttta aaaatgttca caagcttcaa aaaagtttac gaatttgaaa aaaaagtcca 360
 tcaggtttgg gaaaatttta tcgaattttc aaaaacgtac ttcaattttg aaacaaaagt 420
 tcacaaacta aa 432

<210> 9009
 <211> 432
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB104-057-Q1-E1-E11
 <400> 9009

cgggccgacg ggagagttca tagttttttt gtgtaggtgc gtgggacttt tcaggagcct 60

cctactggat tgataccttg gttctcaaaa actgagggaa atacttacgc tactattgct 120
gcatcatcct ttcctcttca aggaaaacca acgcaagctc aagatggtgc aagaaggatt 180
tatggcacccg ttgtctggga ggtctttgct caagtcaaga cataccaagt acccatcaca 240
aactcatctc cctcgcatctt acattatttg ccatttgctt ctcgtttctc tgtccccac 300
ttcacccttg cegttttatt cgccctctct ttcccgttcg tccttttggt tgctagtgtt 360
gccatgtgcc ttctatatga ttgcatcttt gcttgctgaa aatctattga aatggattca 420
cttanagtgt tc 432

<210> 9010
<211> 444
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-E2

<400> 9010

gggtccaggc gaaagcagca cttgaggtta ttcttcgcag gtccttatct ttcctcaagc 60
cagatacctt ccagggtgct gtcaaggcaa tgaacgaaag aattctctcg gtccttgatg 120
cgtctggctc tggccgcggt gatcttggga tgttctttgc tatcattgct ccaatctggt 180
ctggtcctgt ggataggcgc aagcgtgtcg tcttcgatgc actcctttgg cgtcctgcaa 240
gcgaagggtg caggggccag atcaggagga gtgacgcgct aagttacatt aaacttctcc 300
gtgccgttta cataccaacc catggggcta gcgacatgct tgaaatgcat ggggagtctg 360
accctaccat ggtatcgtae acagagttcc ttgagatggt caatgatcct gattgggggtt 420
ttggaattct aaccacactg gtga 444

<210> 9011
<211> 133
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-E7

<400> 9011

gtgagtcgta ttaagtgatg caacgtgccg ttctgcccac gtcctgtact cgggtgcgacg 60
atccgtccct ttacgttctg tctgtcttgc tggaccata gattgtgtga ccgcatcac 120

gtggcgtgct ggc

133

<210> 9012

<211> 328

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-E8

<400> 9012

tgagtcgtat taaccacgca actttcgtcg gtaccttaaa cccaccatgt accttcctca 60

aaacagccac catacctatc tagcatggca tttccatagc cattccaaga tatattgccca 120

tgcaattttc caccgttcca tttattatga cacgcttcat cattgtcata ttgcgtgcat 180

gatcatgtac ttgacattgt atttgtggca aagccaccat tcataattct ttcataacttg 240

tcactcatga gtcattgcat atcccggtag accgtcggag gcattcatat agagtcatat 300

cttgttctag tatcgagttg taatattg 328

<210> 9013

<211> 437

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-057-Q1-E1-F1

<400> 9013

atcaattgac tagaagctag acccatggag gcaataagcg caaccatcac ccgggttttgg 60

aaattggtaa acaaaacggg cttgcggcca acaaccaagg aactttctcaa gttcttctct 120

aaggcctcaa aggcaaaagg cctcttggac aacaactttg tctcccttat ttgacgaagg 180

tcctcgtcgg ctctctcgac aagttcaacg tcatcaagaa gctcccgaac gaccttgacg 240

tacgcctcta gcccatgcgc ccatgctctg tgatgcctgc caccctcaac ggctctctatg 300

gtgacaacct cttcgacgca ctggtggccc tgcgattgcc cgtcgtcgcg ccggagaatg 360

tcaacctcga ngtcgcgctc aacgcgcagc gcctggcgca gcaagacaca atcgacataa 420

tcacccacat ctacgcg 437

<210> 9014

<211> 425

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-057-Q1-E1-F10

 <400> 9014

 cgggtcgacg ggaaattaac aacagcacca gtattggttg tgccagacat acacaaaagt 60
 tttgaagtgt attgtgacgc atcccggaag gtcctcggat gcgtattaat gcaagaaggc 120
 aaagtagtcg catacgcttc cagccaacta cgaaagcatg aagaaaatta tctactgat 180
 gacttggagt tggcagcagt cattcatgca ctcaaagagt ggaggaactt tttgctcgga 240
 aattggtgtg aaatatatac ggaccataaa agcctcaa atattttcac ataaccagaa 300
 ctcaatttac gacaatggcg ctagttggaa ttagtgaaag attatgatgt tgacattcac 360
 taccatccag gaaaggcgaa tgtagtggca gatgcttta gtcgaaaccc cagctcgggc 420
 aacga 425

<210> 9015
 <211> 425
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-057-Q1-E1-F11

 <400> 9015

 tcgcggtcg acggcgcca gcatccacag tcggaggcgg agttccacat cgactccagc 60
 gacgactccg acgaccactc cagcgacgac tccgacgacg acggataact agttagtcat 120
 ctatacccat ttatgtgtca aatagatcat agggtttttc tggttactcc tgccctcccc 180
 tttttgggat ataaatccta tggttatggt ctctaatacc atgaaatctg agtaagtttc 240
 gctagatccg tgtagtgtat tgactgtttg aatggatatag gtgataagtg attagttggt 300
 tcactgtgac aaatcatttc tgctagtaat ccgactaggg ttagtgttcg tgctaataat 360
 tctagccag ggcttgacaa ttgattttca atgacctaca tatgtttgtg ccattatttt 420
 cttca 425

<210> 9016
 <211> 379
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-F12

<400> 9016

cgggccgaca aatggacaca gccacagaaa ttgctgcttc aaagggcgat gtccgcttgg 60
caatcctgct aagccaggca ggtggatcga tgtaaatacg ctccgatggt gctcagcagc 120
tggatctgtg gaaaataaat ggtctggact tcgattatat tgaggaagac aggttaaaga 180
tatacgagtt gcttgctggt aacatacaag gcgctttact tgattcacca atcgactgga 240
aaaggtagct tggtttaaat atgtggatc agttgtcacc agatacatca cttgatatta 300
tcattcggtg ttatcaccaa ctacttggtg agggcaaagt tccaaatcct gttcctgtat 360
acatcgatga aggacctct 379

<210> 9017

<211> 272

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-F2

<400> 9017

tgggagaaaag caaacccaaa gacgtcgctc tgatgacgat cctccattgt agaatacctt 60
cctggtttct ttttccctgt atgtatgatg ttgatgatgt aaaggctgat tggtttgcag 120
ccaatttttg gcatgccaat tgttggcaag cctatttttg gcaaagctgg aagttgccaa 180
catttggtcat gtttggttat caattggttg gttgccagtt tttcgccaat atttagcaaa 240
aaaaacatgt gtctatcaat tggtttggtta cc 272

<210> 9018

<211> 458

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-F4

<400> 9018

gggtccaggc gcataaatga gctcatttca tgcgatcgaa cacgacgcc cggccgggccg 60
gccatcgatc gtgtcgtcac tcccggccgt aacacggcga ggaacgactc cggcgaccgg 120
tcatttgcaa gtttccgctc gctcgtaccg ccgacgtgca ggggacaggg aggactcatg 180

aagctgaagg gtttggatta gtgttcatgc tactactcca caatgagctt ccccatgaga 240
agccaatgat ccctattgaa gcatctaaac gatttttgtc tagctatgcg aaatcattac 300
tcatgatcag tcagtgcccg tatggagata tcatcaaggg gaagctacaa aaatatattg 360
gaagaggtag tattgcatac tccctccttc catctatata gggcctaata catttttcga 420
agctaatttt gaccaaattg tagagcaata atatatga 458

<210> 9019
<211> 445
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-057-Q1-E1-G1

<400> 9019

ggtagaaaaga canatttaac cctgacggag ggagagaaat catgaaatgg ccgtgtggga 60
atccgaaggc caaacgggaa tgagaaaagg aagtgtgttg gaaaaaattc ccaattcaat 120
cacagtatca ctaatccaac ggatcgtggg acgtgcatcg cttgaacata agtcaatatc 180
tacttcgtat caggggtcaaa ggtacaatat cgattcaacg ctgtaaagat ccgacactca 240
catatcacat tttcctatct aaataaacct tttcagttgt gcatgccaaa gttacagtga 300
tgttttctca aacaaccaat gtagctatca tgcacatgca ccactgttac tcttgcattc 360
aaattcatta gtcttggatg atttaagttt ctattttgaa gtaatatatg taatattcat 420
atatgaattc aacgggtatg caatt 445

<210> 9020
<211> 385
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-G10

<400> 9020

tcgtaaaatg cgatgaaact tcctctctga tttttttctc cgtgagacgg aatatatgga 60
gttgaggattg aggtcggcgg agcctcaggg gggccacgag acagggggcg cgcccagggg 120
ggtaggtgcg cccccaccct cgtggactgg gtgtgggccc cctattattg attatttcgc 180

cagtattttt atattttcca aaaagtgcct ccgtggattt tcaggtcatt ccgagaactt 240
 ttgttttcta cacataaaac aacatcatgg cagttctgct gaaaacagcg tcagtccggg 300
 ttagtttcat tcaaatcatg ctagttagag tccaaaacaa gggcaaaagt gtttggaaaa 360
 gtagatacct tggagatggt tcact 385

<210> 9021

<211> 358

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-G12

<400> 9021

acggagaaga tgagggtagc gatgaggaaa atgaggacga tgacgagtaa atagtgtatc 60
 agatcatgag gtagcaaatt ggggtgtggg tccccgctta gtgtactagt ttgctatcct 120
 gctatcctca gtgctagatg atgagatttg gtagtagatg ttgtgtttgt gtgttaaggg 180
 ggccctttta gacttgtgga ctcatggttt gagaagttgt ttagtagtgt attagcagag 240
 aggaagcaga gaatgctacc agctgttcca atgcttttct cttgctaacc acctgtgtaa 300
 gaacttggtt tcattcgcta atctgatgac tgcccagcca ttggctcttg gttaaaaa 358

<210> 9022

<211> 344

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-057-Q1-E1-G2

<400> 9022

ttgaaaagct gattggcagg atattgaagt ggctaaagcc cggtggcaaa tttcaacagg 60
 gagtcccggc tccacaagtc cggggattca agaggaaagt gaacccgacg cactaccggg 120
 agccaaggtt ttacaccaag gtgtttaagg aatgccactc ctatgaccaa gatgggaatt 180
 cctttgagct ttctctggta acttccaagt gcattggagc ttatgtgaag agcaagaaga 240
 accagaacca gatatgttgg ctatgggaga aggtcaagtg cacagaagac aaaggctttc 300
 agagattcct ggacaatgtg cagtacaaat ccaactggaat cctg 344

<210> 9023

<211> 158
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-057-Q1-E1-G3

 <400> 9023

 gggtgggctt aattattcac ttttatatta tttttggaac aaacctaatt aaccggaggc 60
 caacccaaaa attgcgggtt ttggccaatt caattgttcc ggataattaa aagggtcaaag 120
 ggattcaaaa tggaataaaa tcttcggtaa cttaat 158

<210> 9024
 <211> 55
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-057-Q1-E1-G4

 <400> 9024

 ggggtccacgg cgaagggaga ttggatggat ccagcgctcg gtgacacagg acagt 55

<210> 9025
 <211> 149
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-057-Q1-E1-G8

 <400> 9025

 catcatcatc atcatcatca tctcctttct tgtgctaagc tgctaacaag atcgatgggt 60
 acatagcatg gcttgcgcat gaatccatcc acggtcaccc ttcgtgocca ttccccctca 120
 aatgatacgg gatcgactg gagatgtgt 149

<210> 9026
 <211> 448
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB104-057-Q1-E1-H1

 <400> 9026

 ggggccacgc gatgagtaga agcgaaccgc catagtattg aaggacatgc ggggacgagt 60

angagcgaac tgctagcgtg tgaacggcgg ggtagtggct ttccattatc ccatgatacg 120
ggcttccgaa agcccttgga tctgagatcg aacggttgca tcgcggtgatt ctagacctat 180
gggtgaatat cctatcctgg ggggttattc tgcaaatttt caacaactta gcatgcgacc 240
gtttgatctc agatccaagg gctgccagca gcccgatatca tggtcgcgcc taccacgacc 300
gtcgcgtcgc tcgcgcggtc gcgcccttgg agatttaaca cggtcgcgtta ggctatctaa 360
tgttggcatg tcatacatag tcatcactta gtcactcata ctacaacaag gttagctata 420
acgttggcta aaagtgtgtt tatttttt 448

<210> 9027
<211> 391
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-057-Q1-E1-H11
<400> 9027

cagattagtc attacgactc tgcctctttt gcgatacctg accattgcaa ccaaaactat 60
gcgcatattg tccatgccag cgaatttatc gccagactga ccggtgcctc tacagcaaatt 120
aatgataggc atgaatcttt acataattgc gatcccgatc atttgactgc cctatccctt 180
gctgaacatg atgctctcta ctcttggtggc catgatgcca atatttttga acaccaattt 240
gctatacttc cttatgttac acatgagatc attgctattg cactcatact tgacagttcc 300
ttcgacgagg atcatgactg caatgatttt accataaatt cccttgatgt caattgtgcc 360
tataatatgc aaaaccttaa ccttggggat g 391

<210> 9028
<211> 331
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-057-Q1-E1-H2
<400> 9028

tcgacgggtc aatctacaat acttacctct atttaattga ttcggcatgt gatttgtttc 60
agaccacta ctgcagcctc ctaattgaac ttcagccagt gtgtatcaca tattaatcgt 120
acatgggaac ttctgccact gtgtcacaaa tccatcgccc attcgaactt cggettacct 180

cacaacgacg atgacgagct catgtacatt tttcacagaa gaggtcgagt aacaaatggt 240
catatatata ccgtgggatt gggagtcgaa aatggtggta cgctgtcggg cacgtatctt 300
cttctctggg tctgctgggt cccttgactg c 331

<210> 9029
<211> 410
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-057-Q1-E1-H5
<400> 9029

ttcgccggtc gacgggagga tcgactacag cgagttcgtg gcgatgatga ggaaaggggc 60
ccccgagggg gccaaaccca agaagcggcg cgacgtcgtg ctatagggga cggcggcttg 120
gtcgaggaag ccggcgggtc atccgcaaca gaacagcaag cgatcgagcg tgcgtgagag 180
gcagctcgcg acgacgacga tgacgagctc atgtacattt ttcacagaag aggtcgagta 240
gcaaattgtt atatatatac cgtgggattg ggagtcgaaa atggttggtac gctgtcgggc 300
acgtatcttc ttctctgggt ctgctggttc ccttgactgc caggggaatt agtttagtat 360
gtactgtata catcagttga gtaagttgga caaaaaaaaa cagaccaaaa 410

<210> 9030
<211> 205
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-057-Q1-E1-H7
<400> 9030

ggtctattta catacttctt tctatttatt tatttcgacc ggtgacctgt ttcagatcaa 60
ctagtgcagc ctctaaatt tacttctgcc attgatgtat catatattaa tcgtaattgg 120
gaacttttgc cactgtgtat cagatccatg gccattcct acttctcctt gcctcaccat 180
ctctatgccg gcttatttcc atttt 205

<210> 9031
<211> 356
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-A2

<400> 9031

ggtctagaaa tcccggggccg acgggggagct aaatccggta catgggggtcg ctcaccacgc 60
cgccctgcac ggagaagggtg atgtggaaca ttctgggcaa gggcagggag ctgagccagg 120
agcagttaca actcatcacc gcgctgctgc ctcaccagga caataggccg ccgcatccgc 180
tcaatggccg ccaagtcgcc ttctacaagc cgccaaacac catcatctcc atccaatccc 240
tagtactccc tocctaaacg attatgaaag cttacatttg ttacagagg gagtacaata 300
agcaggacat agtacatact ccctcctcgg ttccacagta taagaacgtt tttgac 356

<210> 9032

<211> 221

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-A3

<400> 9032

gggccgaccg ggctctact acgagagccc gaccaagacg ggggagatcg tggcgggtgta 60
ccagccgagc cacgaggaga agcaggagta cgcgtccaac gagcacaacc agaaggcgct 120
ggccgagatc tacctcctca gctactgcga caagatcgcc atgagcgcct ggteccacctt 180
cgggtacgtc gcctacggct tcgccggcgt caagccgtgg a 221

<210> 9033

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-A5

<400> 9033

aagtcccggg ccgacggggg cggaaccaa aaccatcgca ctatataaga tgcaataata 60
aaagtaagaa aataatacaa gtatctatgt aaacatacaa gttagaatat ttttcctttc 120
agaaagaaga taaaacaaga ggctcaccac ggggtggtgcc ggcgatgagc tcggcgcggg 180
tgatcgacgg cggtgaagac ggggatgggg tgtgacggac cactaaacct agacaaatat 240
tatggaaaat ggagcttggg ggtcaagctt ggaaaggaga aagcttaagt agtgtggctc 300

gggcattcca tcgaacacgt tgtgtgcata ggaggtgagc tagagcacca ccaagccctc 360
 tcccccttgg cgagagaaaa acagagcact ggggtgct 398

<210> 9034
 <211> 332
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-058-Q1-E1-C7
 <400> 9034

ctgggttttct gcagtcgacg attatgaatg ttgatcgatt ctgtacctga tggaacatgg 60
 ccatctgtat atataacaaa gtgtacataa ctgccggttc agggatgggc aattgcacag 120
 ctctagtaga tcaaaacaca cacacaacct accacatcat cccaaccac caccctccac 180
 accccccacc ccaaagtgtc accaacgccc caccacacc caaaccttca ccaccacaca 240
 cccaacaaaa caaaaaacgc ggcccccaa aaggttccaa ccttaattcc ccgttgcagg 300
 aaacttcaaa ccccccaaa acagtcccc aa 332

<210> 9035
 <211> 273
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-058-Q1-E1-D3
 <400> 9035

cgggtcgacg ggcaatggag gatgtacgtg tgatatgtca agtagtgagc agataagcca 60
 accactggat gtgggttttga gggatttttg cagtgggggtt tgtaagggtc tatgccgcgc 120
 tgggttttggg atttgaaata aaacgaaggg agatgtgcca cgctcttaaa tgccaaaaaa 180
 aaaataaaaa aaagccaaat caaaaatcaa tacaaggaat ttaacaactt atctatgcaa 240
 atttacacc cgcaattcaa tcaatctaaa tct 273

<210> 9036
 <211> 357
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-058-Q1-E1-E10

<400> 9036

atgactcatg acgacatagc gcatggtttc atgtcacgga ctatgtctcg cattgttccg 60
aagttcacgc gacctatata agacacaatc catgggatgt gagcatccgg tgatagattg 120
ctcatgagag agtcatgctt gagacttggg gtcttgatat actggagagc attgcatgca 180
ttgcttgatg gttttatttg aagggtatat ttaaagctgt actgatggat ctcttgggtg 240
agccacctat tgtacagtgc catgtctatg acaagctatg catcacaggc aatctagtca 300
aaatgctgtc gattctatct gacgtttggt actgaatgaa tacctgatac aaacggg 357

<210> 9037

<211> 237

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-E2

<400> 9037

cgggtcgacg gggagtccca aattccgaat caagagattt gttgtggaat ttgtcaattg 60
agtaaagtaa taatattaag aactagatca tctaacccca ttgaatgaaa aaatgaaatt 120
cgattttcaa ggaaattttt gaataagaga taaataaaca attgaattga aaaaaaaaaa 180
cttctttcca ttttggaaaa tttccttttc aataagaccc tctttttgga gtgaacg 237

<210> 9038

<211> 241

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-E9

<400> 9038

gacggggtat gacagataat atcgatatag gttattctac aagattactc tatagatcca 60
tcagctctaa gtaaactgcg tataaatcat gtatgtagaa ggtatgtgtt actgatgtta 120
gaaattgatt ccttggtgtg ggggtcggat gtaacacaac atgtaattct taatatccac 180
atgcctcacc aaaacaatgt acggctaacc cacaattatg acgttatcaa gctcattaca 240

a

241

<210> 9039
 <211> 439
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-058-Q1-E1-F4

 <400> 9039

```

cccgggccga cggggaatac aatgaggagg gctcagtaac ttctgacgtg gttgtccagt   60
tgtgcaaaga tgtgcagaga aggtctcagg cgggtggttt cattgacttt ggccgcttta  120
ccaatcatcg ctcttttgag accggttcaa agccgattga ctacatccag agatttcaca  180
atggtgattt agcgaaatgt gaaactacgt ttgaagagat gggccgtact gcacaggcca  240
acattatgtg tggacgatgc tcaataaag tatgcaaaga tgaacatgga tgcatttgcg  300
gcgtatccta tgatgaaagg atgtgcagga cggttgttga gctagccatt ccttgctcta  360
aaagaggtcc aagagttttt acgggtttca ctctgtgggt tcacccccgg tcagcacaag  420
tggtttacaa tggattgac                                     439
  
```

<210> 9040
 <211> 419
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-058-Q1-E1-G1

 <400> 9040

```

cgggccgacg ggcacacac ttaaaaacga tattatgaat tttaaacaat ttgatcatga   60
gcatgttgcc caatcttggg aaagaatgaa attgatgctt cgcaattgcc ctactcatgg  120
tttgaattta tggatgatca tacaaaatgt ttatgcccggt ttgaactttg cttctagaaa  180
tctcttagat ttggccgccc ggggcacggt tatggaaatc actttaggag atgctataaa  240
acttcttgat aatattatgg ctaattattc tcaatggcat accgaaagat cttctagtaa  300
aaaagtgcag gctatagaag aaatcaatgt tttagtgga aagatggatg aacttatgaa  360
attgtttgct actaaaaaca ctctttttga tcctaagat atgcctttgg cctccttga  419
  
```

<210> 9041
 <211> 356
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-G4

<400> 9041

cgggccgacc ggcaggataa acacatgtat acacgatgat tgtccgtgac atcactgaaa 60
acacgacttt taaaggccac acacaggaca tcctatggca acaacttcac agttaggttc 120
atgacgtaag acaattgcag cattttgaac gacaaccttg gttaaacatt cgcaagtgtt 180
acaaacaggc agttagcgca cgaatgtcta aggaattacg caaccctaatt cgcaacttca 240
atgtgatctg caaccgcaca atcattccaa ttggtcagct aggtaagctc agtatcaggt 300
tcatgcttgt agcctcgaat acttcgcaac ccagctcatt ctgtccaacc attcac 356

<210> 9042

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-G8

<400> 9042

tcccggggcg acgggagctc ggaggccggg agctacgagt acgacgagga tgccgaggag 60
gactacgagg aggagctcga gaaccacctc cgcgtccacc accacgagca cccaggcggt 120
ggcgagggtt atggggacga tgatctcgag gctgatggcg agggcgaggg tgagggtgag 180
ggcgaggatg aaggcgagga tgacggttct gaagagagcg agtacgagga ggaggggttt 240
gatgaggacg aggaggtgga ggatgtggat ctagaccccg cagagtacga ggacgacgag 300
gcttatgcac gggcgcttca ggacgctgag gagcgtgagg ttgccgcgcg gcttatggct 360
ctcgctggga tcagcgattg gcgggcccgtg gaacatgttg aggattacat acacgacgcc 420
caggattcat ggcaaga 437

<210> 9043

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-058-Q1-E1-H10

<400> 9043

cgggtcgacg ggggcagatc aactatgagg agctcaaggc tgggctggag aggggtggcg 60

ccaacatgaa ggagtcggag atatctcagc tcatgcaggc tgccgatatt gacaacagtg 120
gtaccataga ctatggagag ttcatagctg ccactctaca cttgaacaaa gttgataggg 180
aagaccatct atatgccgcc ttccaatact ttgacaagga tggtagtgga tacatcacgg 240
ctgacgagct ccaacaggca tgcgacgagt ttgggattga ggatgttcga cttgaggaca 300
tgataggcga agtagatcag gataatgatg gacgcataga ttacaatgag tttgtggcca 360
tgatgcaaaa atcgaccgca ggctttggga agaaaggcca tcagtataac gttagtgtcg 420
gtcttaggga tgccttgaac ataaa 445

<210> 9044
<211> 441
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-058-Q1-E1-H3
<400> 9044

tcccgggccg acgccgtcat gaccatcccc aagggtccc tcttccccat gtgcggcatg 60
aacctcgctt tcgaccgca gctcatcggc ccggccatgt acttcggcct catgggcgac 120
ggccagccca tcggacgcta cgacgacatg tgggcgggct ggtgcgtcaa ggtgatctgc 180
gaccaccttg ggctgggct caagacgggg ctgccctaca tctggcacag caaggccagc 240
aaccggttcg tgaacctgaa gaaggagtac aagggtcatct tctggcagga ggacatcatc 300
cccttcttcc aggcgcgcaa gctgaccaag gaatgcgaca ccgtgcagaa gtgctacatc 360
tcgctctcgc agcaggtcaa ggagaagctc ggcaagatcg acccctactt cgtcaagctc 420
gccgacgcca tggtcacctg g 441

<210> 9045
<211> 374
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-058-Q1-E1-H4
<400> 9045

agcagctaac tagaccccag cgttgctggc agcgtcaacc ccgacgatga ggtcacctgc 60
accccccaacc ttgacgcca ggtcagtaga aggtacatctt gattgctggg gtggatggaa 120

gagtgacaat aactacaggt tgggtcaaagg ttgaaagaaa ttctccttta aattaggcca 180
atgctactca acttttcttt gagtgacgag gaatttcaac cgtccttggc gaaggactgc 240
tatctgattg tcactagcct cgtgtgtaaa tgcttcgctt tcaatatttt gtactatctt 300
gctgccctat gtgctactta agcctgatct attaaacatt acttggccta ttcctttgtg 360
ccgagcttga tgtg 374

<210> 9046
<211> 373
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-059-Q1-E1-A1
<400> 9046

acggtcgtat ctcacgggtg gccattcgcc cgcaggagag caacgagcgc gctttcctat 60
ttgggggtcaa gagtggcgct gatggtgaag gtaccaccag taccgtcctc cttggcgaa 120
accttcttgg tctcaggtgg agctgccatt gccttcttac gcttgccggt tgagctcgat 180
ggtgcaccc cgcacggtagc gcagcactcc gaagaggtgc gcttgccgga gtgggagtca 240
gagctcttgc cggacttggg catgttcttc cccccgggag cttcagcggc aagtgtcctg 300
cgttctgctg cggtctgctg ttcccggtag atctcgtcgg atcagacaag atcatccatc 360
atgtcgccag gaa 373

<210> 9047
<211> 402
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-059-Q1-E1-A10
<400> 9047

gaaatcccg ctcgacgggc tacaaataag gtctttgaaa aagatccaaa ctctagaaga 60
tagtaaacca ctttcagtgt tcatagatac tgctccagca cagagaattt gtaggatcga 120
aagtatgtct agaggggggt gattagacta ctcgacccaa taaaaatcta gccttttccc 180
aattttaagt cttggcagat tttaacaact tagcacaagt caagtaatca acctacacat 240
gcaattctaa gagtatagca gtggaatgta aaacaattgc atatgaaggt aaaggaggga 300

gtttggaggg agaaaacgca atgtagacac ggagattttt ggcgtgggttc tgataggtgg 360
 tgctatcgta catccacatt gatggagact tcaaccacg aa 402

<210> 9048
 <211> 433
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-A2
 <400> 9048

gggtggacggg cgggtgcagcc atcctagaag gggcttcagt tggacctctg attgagcttg 60
 ccatagactt tgaccaagc atcctcgtga cagggtttgt cggaaccgcc atcgcccttg 120
 ggtgcttctc tggcgccgcc atcatcgcca agcgcagggg gtacctgtac ctcggcggcc 180
 tgctctctc tggcctgccg atcctgctct ggcctgcagtt tgccacgtcc atctttggcc 240
 actcctctgg cagcttcatg tttgaggtct actttggcct gttgatcttc ctggggtaca 300
 tgggtgtacga cacgcaggag atcatcgaga gggcgcacca cggtgacatg gactacatca 360
 agcacgcgct caacctcttc accgacttcg tcgcgcgtct cgccgcctc ctcacatca 420
 tgctcaagaa cgc 433

<210> 9049
 <211> 424
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-A3
 <400> 9049

gtgacgaatg acattgggtg gaggtgctat ctcttgaag agcaagaaac aaacttctgt 60
 ggcgcagtct tctatggaag cagagtacat tgctgcgaat gaagctgtaa aagatggcgt 120
 ttggttgagg aacttcctgg tttctctcga gatagttgaa aatgcgtctg atccggtcac 180
 ttttattgtg ataattaagc tgcgattaat ctttccaagg attccaagtt tcatagcagg 240
 gctagacata ttgagggaaa gtaccattat attagagatg taataaatag gctgaaaact 300
 gttcggcttg catTTTTGCC tggtaatgat atgttggcag atccactgac taaacctctt 360
 agtcaggaat tgTTTTGCAa acatgtcagg aacatgggcc ttaagatttt tgattgaatg 420

tttt

424

<210> 9050
<211> 454
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-059-Q1-E1-A4

<400> 9050

ggtggacggg cgtcctcaaa acataaggta tcgtgctcat cctcacgaaa tcccttggct 60
tttcctttgc tcattcttct ctttatctct tcaatctcct tgtctgtctt ctgagcttct 120
ctgatccttt ccatcaagggt ggactgaatc tccaatgtcg ctagatagcc tcttgggact 180
atctccaaac atagctcgcg aaggctctcg gctaactcct aaggtatctc tcctgtcatg 240
ggggtgctgc catggatctc ttgctgcagt tccatgcgta ngatgaagggt ttcattgaatc 300
acgagtagca taggaacaaa gtgatgagca ccggccgagg cacctttgggt catcttggtc 360
ttcaaacaga ttgcacagcc agagcaaaca acattccaca ccgangcagc tangatgaac 420
acagtantag tcgagcataa atatatgaat acag 454

<210> 9051
<211> 412
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-A5

<400> 9051

gggtacggat gcaaaagatc tcggaggagg ggaagggcga gtggaggaag gaagccgaga 60
ggaaggagca ggagcttgag aaggagcagg agaccagca gccaggactc accggcagac 120
ccccgctcgc caacggcagg tctggaatgt tgccaatgtc gagccctcca gcaaatccgg 180
gacagcttac cattttttat ggtgggtcag tatgtgtgta tgactcagtg ccaccagaga 240
aggctcaagc aatcatgctc attgcagcag cagcagctgc ggcctcaaaa agcaatggca 300
ccgctgctgt taagcctcca gcgatgtctg cgaccaatgc tatccaagcc atgcttacgc 360
ggtcgctctc actccagagc acttctgtag caaatggaca acctcaggct gt 412

<210> 9052
 <211> 415
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-059-Q1-E1-A6

<400> 9052

ggtcgggggg tgattaatta ggcatagggg gagctaggag agtccaaatg taggtgccaa 60
 tgctgggtcctt ggtgccggtg caaatggaaa tgggtggtgct ggtcttggtg tcggtgcaca 120
 taaatctatt ggtgctaata ttggtgttgg tgcgaatgga ggcgctggtg ctggtgttgg 180
 tgctggcctt ggagcaaacg taggtattgg atcaaagtga ggtgccaatg ctggtcttgg 240
 tagcgggtgct ggtgctggtg ctggtgctgg tgcgaatggg ggcgctaaca ttggagtggg 300
 cattggagca aatgtagggtg ccaatgccag tcttggtgtc ggtgcacata aaggtattgg 360
 tgctggtgct ggtcttggtat cagatgtang tattggagca catgttggtg ccaat 415

<210> 9053
 <211> 386
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-A7

<400> 9053

gtgaggcaac gctatctgag ggaggcggtc gggatgtacg catcatcatc cacggaagcc 60
 acgatgacga cgatgattac gccggcgagc ctgaggcgga cgctgagcag gctgggctct 120
 cacgaactgg gcgtggacga gtgcacggca atgatctgca gatttgacct cgacggcgac 180
 ggtgccctct cgttcgatga gttccaggtc atgatgatgg cctgatcatc gaccctcttc 240
 gtggcatttt tctagactga tatgattttc cacttaatgc atcgatcgat cacatgtatt 300
 tgtacgtgtt cattctttcg ttgatttgct cgcacgatca tctctgattt ttgtgaacac 360
 gtgtacagat tcatttggtg tcacac 386

<210> 9054
 <211> 415
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-A8

<400> 9054

gggcaagccc ttgatgttta agtgggcat cgcattat ttgctctcgaa aaaagaagcc 60
atcacaagc aggtatacat ttggattatc aagtaacaat gtgggtttac tcatactctt 120
ggacaagtgc cctcggattc agaaaactct catgagaaga aagtaaagcc tgtctgaaga 180
agctgctgct gcctaagtga aataacatag ccgttggttg ggaagtctgc atcaaatcac 240
attttcttat tcaagggttg ggaggagatg gtgttggttt aattcttttag ttgttgatga 300
tttctctttg gccccaggag gggatgggga tccttggtgcc atgatccaga aattgtcaat 360
gtgggttttg ggggggttgct ttgcttata tttctcacc agcaaaggct atatg 415

<210> 9055

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-B1

<400> 9055

gtcgacgggc atgcaaaagg aggaaagaca aagagattca gcggtctggt gttggtgtga 60
cgactgagga gaggccacac cctgtgctgt tagagagctc cgttatccag cttgacgagg 120
agctggacgc aggggtctcc aagtgaagtg gttgtaatca tggtagctac tagttgtttt 180
tttgtcttga tctatctggg tctaagattc taaaatacat tcgcccatac atcagtacta 240
gataggggtg tggcttgcca cgcattgccc agccaacggt aagccatcgg atatgataat 300
cggttcaata tatagctgaa ttagatattt tattgttggtg ttgggagctg tcttgagcac 360
atagttagaa atcatgtttg tagttgctga aagaaaa 397

<210> 9056

<211> 295

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-B10

<400> 9056

cgacgggggg gacagcgagg tgccgttcgt ggtggcgctc ttcagttgca tgcattggat 60

cttctactcg ctggtcaaga ccaattccat cccgctgctc aggagcaatg cctgcagctg 120
 cgtcatccag ggcttcaaga tcttgcccta cgtgggggtac tcgcccagag ccggcaggca 180
 ccacgcccac gcctttcttc tcatcgctga cggctccgcc ttcgcaactga atgtcacctg 240
 gagtgttctc ctctgacgac agcctagtcg cgtcaaagtc cttgggagag tctgc 295

<210> 9057
 <211> 386
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-B11
 <400> 9057

cgaccgggat gaagagactg acatggtcaa gcttgaggaa gctgtccgaa gcatcaagat 60
 ggaggggcctt ctgtggggcg cttccaagct catgccagtt ggatatggca tcaagaagct 120
 tcagattatg atgaccatca ttgatgacct tgtgtctgtt gacactctga ttgaagacca 180
 tctctgcgtc gagccagcca acgagtacat ccagagctgt gacattgttg ccttcaacaa 240
 aatctaaatc ttcctgaggc aagtgatggc ggtcgggtgga caatgcagca gcacaaacaa 300
 tataatctaca gttttccgtt gccgtagcta aagcagcata acatattctg ccctgtgagg 360
 tttttggacc ttaggttgag ttgggt 386

<210> 9058
 <211> 405
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-B12
 <400> 9058

tcccggctcg acgggtcagt aaatttgatg atgttttact tttggaaagc tgtatttggg 60
 tcagaactgc ttggaaacta gctatattaa tgtaatgtaa tgtaatgtat tgtgtgtctg 120
 aactgcatct gttgtgaact gcctgctacc tgtggtggta acctagaatg ctatctatat 180
 atgtgtggcc ttaactttat tgggtgtgaa tgcttccttc atgttttagtt gttgtttcat 240
 ggtgcaatga acacaaatgg cgcttcggtg ttgcttcaga catgctgcaa cacttgtcta 300
 tgatgtgggc aagtggaaca tgctgtgcc atgtgccaat tacaccaaat attgaatgtg 360

gcaatgttcc aaaatggctg tcatgaatta tagtacatgg ggttt

405

<210> 9059

<211> 422

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-059-Q1-E1-B3

<400> 9059

ctgaataacg gatggtggga ggggatcgtg ctgcagcagg agactgctgg ccacgtccaa 60

gtttatctcc aaggtgaact gcctgcctac tctctctggc tctcatcacc tagctagcag 120

ttaatagtag tccctctgtc ccaaaataag tgtcttaact ttatactagc tctagtacaa 180

atttgtccaa agctcaagac acttatttat ggacggatgg agtagtatat attcggttgg 240

tacttataac actggactgg agcttttcct gatgcattgc atgcttgcca aaatttccag 300

gggaggggag acttgtagag ctccaagtgg agtgtctgcg gaagtcattt gagtggcgtg 360

aggagcaatg gctgcctcta gatgcangaa aagatgttgc ggccaagata acccttgacc 420

tg 422

<210> 9060

<211> 403

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-059-Q1-E1-B4

<400> 9060

ggtgacgggc ggggggggaa ggaaagaccc ctggtcctat ttataaaagg caaagggata 60

agtgacaggc gcgagaatcg aggagcccaa aagttagata tatggcagag ctgtcgcttc 120

gattgtcgga ggctcattaa ggaagggtgag ctatatgcaa tttttaataa caggtgacgt 180

catggcggtt tatcatgatt ctggaagatg acattatggc ggtttacaag aattctgtga 240

agatgatgat gcgtttaaga ttgacatgaa ccagttcaga tcaatctggg gcctaattgtt 300

ggggatatta ctactgggca taaaccggcc aggagaggcc gggttatccc cacaatgggtt 360

tactgtnact gaagcccatg aagacagacg gtgggtgcttt atg 403

<210> 9061
 <211> 377
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-059-Q1-E1-B5

 <400> 9061

atccaacata tcaagagatt tagaaggccg aaatggttca ggcaacttat tgggcaaggc 60
 tcctcctatg tggaccgcga gagatttaga aggccgaaat gattcaggca attgccgaac 120
 atccaactta ataagaccat catggattcc aaccgagtta tttgtgatat ccagaatata 180
 acccgacaca aagagttatt tgtgatagaa gtacatgcat ttgcaaaaaa tagataatgc 240
 attactctta tattctactc cttttgtaaa ctaatataag acttttttaga tcactaaagt 300
 agtgatctaa aaagtctcta ttagtttaca gagggagtag tatgctatct ccatattttt 360
 gagattctta aattatc 377

<210> 9062
 <211> 478
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB104-059-Q1-E1-B6

 <400> 9062

ggcagcggcg gaacggggcga tggccctggc ttttgatggt ggtgtggcgg caacggcggc 60
 cggcaacagc taccgatggg caccggcggc ggagcgtgtg gtgggtgttc cgcgcacacc 120
 caatggggac gccacacgca ctacactacg cctgggactg cgccgccgcc gcggtgtagc 180
 caccagctg gagttgtctt ctgatgatgg cggagtggct gagcgacaac gacggaccag 240
 tgccattggc gattgtggga gaagcagacg agataaggta cagggaggga ggggaaaatg 300
 cgacacagga ctgcgccgtc gtgagggttt ttatagcagg tcggtaagca ttgggatttt 360
 gggggatttc actgagtcag ggagaagctt gcgcgggaaa ctgcgaggtt gcgcgggaat 420
 gagctcancg acgattcatt tggcacaccg tttggcaaaa tgaacgcccc cgcgcgct 478

<210> 9063

<211> 426
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-059-Q1-E1-B7

 <400> 9063

 gcagcgatgg cacgggcgat ggcccggcct tttgatggtg gtgtggcggc aacggcggcc 60
 ggcaacagct accgatgggc accggcggcg ggccgtgtgg tgggtgttcc gcgcacaccc 120
 actggggacg ccacacgcac tagactacgc ctgggactgc gcctccgccg cgggtgtagcc 180
 acccagctgg agttgtcttc ggatgatggc tgagtggctg agcgacaacg acggaccagt 240
 gccattggcg attgtgggag aagcatacga gataaggtac atggagggat gggaaaatgc 300
 gacataggac tcgccggtcg tgagggtttt tagagcaggt cggtaagcat tgggattttg 360
 ggggatttca ctgagtcagg gacaagcttg cgcggaacc tgcgacgttg cgcggaatg 420
 agtca 426

<210> 9064
 <211> 467
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-059-Q1-E1-B8

 <400> 9064

 gggattatta caaactgttc tgtttttagag agattctgtt tttgatgcat agtttgcttg 60
 ttttgatgaa actatcgatt catatcagtg aattaagcca tgaaaaattt atattacagt 120
 agacacaatg caaaaacaaa atatgaattg gttttcaata gtacttagag tagtgatttg 180
 cttcattata ctaacggatc ttaccgagtt ttttgttgaa gttttgtgtg gatgaagtgt 240
 tcgataatcg agaattgtctt gatgtgagaa gaaggaagag aggcaagagc tcaagcttgg 300
 ggatgcccg ggcaccccaa gtaaattatc aaggagactc aagcgtctaa gcttggggat 360
 gcctcggaag gcatccctc tttcttcaac aagtatcggg atgttttcgg attcgtttcg 420
 ttcattgat atgtgcaatc ttggagcgtc ttttgcatth agttttc 467

<210> 9065
 <211> 405
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-C10

<400> 9065

gctcgacggg aagcaaaggc ttgccgagtt gctgaaggag gctggacgag ggagaagcag 60
gaaggcaaaa tccctggaaa atcttctaga gaccaacca tacaccatcg ggaagaggac 120
tacagttgca acgtgagtga actacagctt ttgaaagaga aaaaggaaca ctatgacgct 180
aagaatttgt gtatcaattg gtttattcaa atttggtgag aggggtaaat gggaatagca 240
gtagcgtttt gagtatcgag atacaaaaat ggtctgattg attgttgtaa agttgcaaag 300
gctattttca cttgttatta cttgctcggt gtctagagca attaactgtg ctcgttgaac 360
aggtgtgttt tgcctagtcc tactagttac atacactaca acaaa 405

<210> 9066

<211> 211

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-C11

<400> 9066

gttgctgaag gaggctggcc gacggataag caggacggca agttccctgt aaaatcttct 60
atagaccatc ccatacacca tcgggaagac gactacattt gcaccgtcag tgaactaccg 120
cttttgagag aacgaaggca cactatgacg ctaagaattt gtgtggcaat tggttttattc 180
aaatttggtg agaggggtaa ctgggaatag g 211

<210> 9067

<211> 400

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-C12

<400> 9067

ctcgacctca gtggaagctg ggaaaaaata gcgaagatca gtagaagggc gcccgttcag 60
gggggcaaca gacacccttt cgaggttggt ggcggtagct ggtccctcca atcggcccaa 120
agttactagg ccctggcaga tcttcttctt tgtttgggtt caagtccgag tctctccact 180

ggcattccgg ataagaatga atgtcaaata aggattagag ttagaaacaa accatgaagt 240
 tgacatcaac ggggaaacat aaatttagac gagtaaagta catagactag tactccctcc 300
 ataaagaatt ataagagcat ttggatcact aaaatagtga tctaaacgct cttatattag 360
 tttatacaga ggtagttaat gtataccgga tgcaagcatg 400

<210> 9068
 <211> 425
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-C2
 <400> 9068

ggtggacggg ctttgaggat atcatagcct ggcaacctaa tcgcaccaga attttttcag 60
 tgaaaactgc gtaccatttg caatggatgc aactaatag ggcacatgca aatatgatgg 120
 agagtgcagg tcccacgtat ggtggttcag cgcctttggc agtgtggaat acactttgga 180
 aagtgcagg cccacgtaga attcagattt ttgggtggag ggttctgcga ggaatcgttc 240
 cgctaaaagc aatcctgaca aacagacaca ttggttctaa tggggcgtgc ccgatatgcc 300
 atcaagggtgc tgaggatatt aggcattctt tatttctatg tgtgcatgca aaggaagtgt 360
 ggaggcgtct tgggatgttg caactggtgg aagatgttgt tctagtggat tcgggctcga 420
 ttata 425

<210> 9069
 <211> 447
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB104-059-Q1-E1-C5
 <400> 9069

ggaagaaaac cgatcgatca caccatgccg aaagggcagc aaagtcttgt tacttgggcc 60
 actccaaggt tgagcgaaga taaagtaaag caatgtgttg atccaaagct caacagtgac 120
 taccctccaa aagccgtcgc caagctagca gcagtggcag cgctgtgcgt gcagtacgaa 180
 tccgacttca gaccgaacat gacgatcgtt gtgaaggcga ttcagccctt tctcaaccaa 240
 aaaccggctg gaccagccgc cgaagcaccg aaaccctgat cgatcagcgc tagggggcac 300

aaagaagctt gaatgaactc ttgcatgggt ccatgtgtta tatctataga tcatctactt 360
gatttgttta ggtcatgggc tgaccacctg tggcgggtgct aggttcaaaa ccttgtcatg 420
tcaaaatttt ctgaacgaan atcgtgt 447

<210> 9070

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-C6

<400> 9070

ggaagaaaaa cgagcgatca caccatgccg aaagggcagc aaagtcttgt tacttgggcc 60
actccaaggt tgagcgaaga taaagtaaag caatgtgttg atccaaagct caacagtgc 120
taccctccaa aagccgtcgc caagctagca gcagtggcag cgctgtgcgt gcagtacgaa 180
tccgacttca gaccgaacat gacgatcgtt gtgaaggcga ttcagcccct tctcaaccaa 240
aaaccggctg gaccagccgc cgaagcaccg aaaccctgat cgatcagcgc taggcggcac 300
aaagaagctt gaatgaactc ttgcatgggt ccatgtgtta tatctataga tcatctactt 360
gatttgttta ggtcatgggc tgaccacctg tggcgggtgct aggttc 406

<210> 9071

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-C7

<400> 9071

gggggacaag tgacttattc tgatgatgat aaaacgctgg ccaaacagcg tgaggaaata 60
aagcgcata ctgctgagtt tgatgcgagc atgctggaga tccgcaagaa tttggatgct 120
atggatgaaa ttgagaggcg gagtgcggag gactatgaga agttccgtaa gaagctaaac 180
aatattgaga aagcatgcaa tggtgctttg atcgtgctgg tgcctagcac tgttctgctt 240
tttatgtcac tgtagtatca tctctattag ttgggtataa gaaaccctta tttaactagt 300
gggttaagaa accctacctt cagaactcta tgtgtttag tgatccagct ttggactttg 360
cattgcatct taatgaacgc ataatggtga gc 392

<210> 9072
 <211> 222
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-C8

<400> 9072

ggtatcacia taattatgct ttttcactct tattttataa ggtttacatg aagagggaga 60
 atgccggcag ctggaattct ggactggaaa aggagaaaat attagagacc tattctgcac 120
 aactccaaaa gtactaaaac ttcagggaga attattttgg aatatataaa aaatattggg 180
 cgaagaaagc accagagggg gggcactagc catccacaag gg 222

<210> 9073
 <211> 349
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-C9

<400> 9073

ggaagaattc cgacagcacg acggcgtggt gacgatcttg atgaactaca gcagcagggc 60
 ttcgcctaaa ctccgctaca gtattatcga ggaatatggt ggcagggggc accgcacacg 120
 gctaaggaat agatcacgtg gatcaacttg tgtgtctttg ggggtgcctct accttagtat 180
 ataaaggagc caagggggga gggggcgccg gccaggagga gagggcgtag gaggagtcct 240
 actccttccg ggagtagcac tcacccccaa tcctattcca actaggattc cccaaacggg 300
 gaaagagga gaagggtggc cggccacctc tcctactcc taataagac 349

<210> 9074
 <211> 390
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-D10

<400> 9074

cgacggcaaa atacagtaca ggatacagtt ccagaggcca aaccccgctg gcaccaacaa 60
 tgcgcctcca tcaccaacca ccgcggcagc agcggcgccg cggccaacaa cgccgtcgtg 120

cctgtccctg ccgtcgcgga gcatacagaac ctgaaccggc acgagatcga gatcagagggg 180
aagaagatca acgacaccga caagaggaac aacggaggag tcggagccgc gcaggtaccg 240
acaagcaacg ggcagacaac gccgccgacg gccacgttcg acctgggtgt aaaaaagcc 300
agaagacgct gtgagggagc tgaacgagca gccgcaccgg gagttcacga cggacgagac 360
cgacagcgac gacatgggcg atgactacac 390

<210> 9075
<211> 363
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-059-Q1-E1-D11
<400> 9075

tcatagtacc agaggccaaa ccccgctcggc accaacaatg cgctccatc accaaccacc 60
gcggcagcag cggcgccgcg gccacaacg ccgtcgtgcc tgtccctgcc gtcgcggagc 120
atcagaacgc tgaaccggca cgagatcgag atcgagggga agaagatcaa cgacaccgac 180
aagaggaaca acggatgagt cggagccgcg caggtaccga caagcaacgg gcagacaacg 240
ccgccgacgg ccacgttcga cctgcgtgta aaaaaagcca gaagacgctg tgagggacct 300
gaacgagcag ccgcaccggg agttcacgac gggcgagacg gacagcgacg acatcggcga 360
cga 363

<210> 9076
<211> 449
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-059-Q1-E1-D7
<400> 9076

ggcttcccgg taaatctcgt cggcacagat aagagcatcc ttcttgtcgc cagggacaga 60
gatgacactt attgggcctg gcattttcag tatcttgtag gcatagttag aggctgccat 120
gaacttggcg agtgccggac ggccaaggat tccattataa ggtaatggaa agtcggcaac 180
gtcaaacgtg accctctcag tcctgaagtt cagctcactg ccaaagtgtta ccggcaacgt 240
gatctttccc ttgggcttgc tccttcccgg gttgattcct tgaaatgtgc cgggtctcttc 300

gagctcgctg tcaggggtct ggagcttctg gagcaccgcg gaggagatca ggttcaagcc 360
 ggccccgtcg tcaactagca tcttagtgac cttgaggttg cggattgttg gtgaaaccaa 420
 catcggaag caccgcaccg cagttatgc 449

<210> 9077
 <211> 459
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB104-059-Q1-E1-D8
 <400> 9077

gggcagttta cttaaaaaat ggaaggcatg gttactgacc ttactgttgc aagagatcat 60
 caaactaagt ttgaagagtt tgtagctgat catccggagt cgaatcctga ggtagacttg 120
 gctgttactg tcttgacaac tggattctgg ccaacctaca aaacttttga cataaacctt 180
 ccctctgaga tgggtgaaatg tgtacagggt ttttaaggagt tctacgcaac aagaacaaag 240
 cacaggaagc ttacctggat atactccttg gggacctgca atatcagtgc aaaatttgat 300
 gctaaaacta tacagctcac tgttacaaca tatcaggctg cactgctgtt gttattcaat 360
 ggatctacta agcttagtta ctctgagaat gtaacacagc tgaacctgtc agatgatgat 420
 gttgtccgtt tgctcaantc tctctcttgc gcgaaatac 459

<210> 9078
 <211> 437
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB104-059-Q1-E1-E1
 <400> 9078

gggtggacgg gcgagtgtg gacagcatct ttctttctct ccgtgtgcat gttgcctgcc 60
 tgagtttgcg agtggccgaa gcgaagcaac ctcttctctg ctgcctgcaa cttgccggac 120
 aagtctgaat ctgcaatcca gtgcgaacca atcgcatcga tccgatccga tccgatcgga 180
 acggccggac caaccaatca atcaatgccg ctgatgctgc gtgcaaggaa catccaggtt 240
 agtctagcac cactgctgac agaaagatag tactccaatg ggtgtgcgtg cactccaccg 300

cgtgcgccag atagatagat agatagatag atcaatcaat tatcgtggat tcaatcatca 360
 cccatgcgtg tcgctcacna gacataacgt ctgcattatc agttgttgtt gatagcacta 420
 ataactcccc tgccaag 437

<210> 9079
 <211> 396
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-E10
 <400> 9079

cgaccgcgac ggaaccctca cctacggcgg ctactccagc atggtggtgg tgcacgagcg 60
 cttcgtggtc cggttcccgg acgccatgcc gctggacaag ggcgcgcccc tgctgtgcgc 120
 cggcatacacc atgtacaccc ccatgaagta ccacgggctg aacgctcccg ggatgcacct 180
 cggcgtgctg ggccctggcg ggctcggta cgtcgccgtc aagttcggca aggccttcgg 240
 gatgaagggtg acggtgatca gtcatacgcc ggggaagaag caggaggccc tcgagaggct 300
 aggcgcgcgac ggcttcgttg tcagcaagaa cgccgacgag atgaaggctg cgatgagcac 360
 catggatggc atcataaaca cgggtgtctgc aaacat 396

<210> 9080
 <211> 389
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-E11
 <400> 9080

tcccggctcg acgggggttc atgagtggag ctggtgaaac ggaacttcaa ctacaacgca 60
 ggagaatcca agaacgtcgt ctaagcttgt tagctcaaata tgaagacgta cgccgaacta 120
 gggcgataca gcgttcgagt cgaaagaagc atggtggccc atttgggtcaa gaccttgtaa 180
 ctgtggcagt cgtcggatat acaaatgctg gaaaatctac tctagtgaat gcactttctg 240
 gagctggtct atacagtgat gatagattat ttgcaacagt agatcctcga ttacgcagtg 300
 tgattcttcc atcagggaga aaaatacttc tcagcgatac cgttggcttc atatcagatt 360
 tgctgtaca gctagtggaa gcatttcat 389

<210> 9081
 <211> 410
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-059-Q1-E1-E12

 <400> 9081

atatcccggc tgcacgggca atgagtcggt taccgagcgg tagaggtgaa catttgaacc 60
 atgcactctg catgaagggt gtgatgaata taaagggtgc gattaccagt ccgtaaagt 120
 gggtgacatt gtagataact tccgtcttca ggagcagact gcttttggtt ggaagcattt 180
 tagctctcac ataatcact acaacagtaa cactctgcg aaacattcta gggataacat 240
 agaatgtttt caagaccaat gttcagggtc gcgatacacg taaacatcta tacacagcct 300
 cacgagacac ttcaatacat tgttggttaa attaagcatt aagatgacag ggatttctcc 360
 gactactgtc aggaaggatc agctgattga acattcctgt actttgcaca 410

<210> 9082
 <211> 470
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-059-Q1-E1-E2

 <400> 9082

ggtccgtact tatcgggtgg ccggcaggtc caacacaact ttttagacc gtactctcta 60
 ttttgcgagc ttgtaaagtg cattttacct cagccatcga cccttggcat gtcaaatac 120
 cagggtcgtg gcgttattat atacaaaaca atgattggca tgtcactcaa gttctagtga 180
 atataattta tatcatgtat tcacttttct ctaaaaaaac tgtattttgc tcctttagtt 240
 atttcacacg ccgtgccagg ggctcgatat gggaacaaac taaattgcca ataagtctga 300
 acagctttat agcatacttc ggcgtcgcga ctttggcctt atatgcatca gctccgaatc 360
 atgtcttggc tcaatagttt ggtttcccggt ctctgtgct tgctacctta cgttccgctc 420
 tatccgctaa ggtagtaaag ggagaactac tgcgattgtg ccctgggtta 470

<210> 9083
 <211> 427

<212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-E5
 <400> 9083

ggggggtgag aggacgacct gtcctctgcg ttggctgtcg aagaagagtg ctacgagcaa 60
 gttctgcaca ctcaggatcg ccttgaaggt ctagctgcat ttgcagagaa aagaagacct 120
 ttgtacacag gaaagtgagg ccgtactgaa gtcagccctg ttagcctctt atgtcttctc 180
 tgctgatacc ctgaagaatg tgccttgggt ccaaagaaaa aaaaaacctg aagaatgtgt 240
 ctgggttgct agattatttg cagatgtatg tgctacatct tctgattgtc atgatcgct 300
 aaaactgaat gaaccgcacc catgtaactg taaggatga aagctgcac tggagatgct 360
 gcgggttggt ttcgtcaaaa aaaaaacaac ttgggtgtga atacaactaa taacccccct 420
 gccaca 427

<210> 9084
 <211> 442
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-E6
 <400> 9084

gggcattata ggaagttccc aaacaaaatg gtaaagttta tactcccctc caccaacaag 60
 catcaatcca tggcttgctc gaaacaacga gtgcctccaa ctaacaagag tcccaggggg 120
 agttttgttt gcaattattt tgatttagtt tgcataaagc atgggactgg gcatccctat 180
 gaccaaccac tttctcgtga gtgaggagcg gagtccactc ctcttgagaa taaccgcct 240
 aacatggaag atacgaacaa ccctagttga tacatgagct attcgagcat acaaacagg 300
 atatttattt gaagatttag agtttggcac atacaaattt acttgggaacg gcaggtagat 360
 accgtatata ggtagatatg gtggactcat atggaataac tttgggggtt atgggattgg 420
 atgcacaagc agtattcccc ct 442

<210> 9085
 <211> 422
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-E7

<400> 9085

ggcccagtat ctaaataaac tgggatgttt agttcgtgga ggggacggtc acaattggaa 60
ccatctagct ctaggggttag aacgcaactt atgatctcga ggtagatcaa gcttgtactc 120
gatacacaat catcaatata atcaaagcaa gacgtagggt attacctctt cgagagggcc 180
cggacctggg taaatactgt ctcccttctc ccctgttacc cataaatctg agatacacag 240
ttcgggaccc cctaccccgga ggtctgccgg tttttactac cgacacctac aatgtcgctg 300
gcgccgacgt agaagcactg agctttcgct cggtagctcc tccctcatac attgttgttg 360
aaacttgacc atcgagccca ctccaaggag gccaccgcc gccatgatga atttgggcct 420
tc 422

<210> 9086

<211> 463

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-E8

<400> 9086

gggcatgtaa gagagacatg atttacagaa ccagggtgttg gtacacctgc tagtgtataa 60
gaacaacgaa tgtgaagttt tcctctgcgg catttggtta gaggcaccga ggtaaaactta 120
tttttgattg aatcatgatg agaaatatat tcacgcgagt caccccaatt ttgtttaaaa 180
tcgtatcaat aaggagatat ttaacacaac acaatcataa cttgcacgcg atgtacgcct 240
tgtgaattaa tcatgttctt accaatgcct catgtctaaa ttttttgttc catgagggca 300
ttcatgtaga cccatccttg tttttctcgt gacaatatct tcaaagctag acccattttt 360
cgggtgtctcc tttgtacctt tatgttggat ctttttcacg tgctaaagcc aagtggactc 420
gccccgcctc ggtagcggca cacacctaga acgaacaacg cgc 463

<210> 9087

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-E9

<400> 9087

cccggtctga cggggtagca actgggggatg ctgttcttga aaccagatct gttgcaaaag 60
gtgtactgga tgttatatca ggtgacttgc caaaaagcat caaattgcag aataaacatc 120
ttgctgcact aatcgaattg cacaacatga ctggcacttt tgctcggaac attcagcact 180
tattttcaga atcagatctt ggagttgtgc tgagtacatt gaaagctatt tattccccat 240
atgaaacctt taagatgagg tatgggcaga tggagcgcgc tgtgctttct gctgcaatgg 300
ccggtataga tatccgtgga gccatctccc gtggtttagg tgcacaaggt atagagctaa 360
gtgaaactgt ccgtaggatg gaggaatcca tcccac 396

<210> 9088

<211> 335

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F1

<400> 9088

caccgaggaa ccagtggcga gtacaccgtg gaagaacaaa tcctgttgtc ggagaggtat 60
cctcgatgat gatctgtttt ggcctgaaga acaactctac tgcatggttc cttgtaatac 120
atgtcaagtc aaaggacgtc ttcggatgat tttgctgagg atgaaaccta gtttttgttc 180
aactgtaa atcttctggaa gcaatttggg agcgacattt ccttgattca gatgattttg 240
tacatttttt catgtgaacg ttaagaaggt gtttgtttcc agggacttat tggtttaggg 300
acttaaaaaa gtccctataa gtccaccta aacca 335

<210> 9089

<211> 386

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F10

<400> 9089

cgaccgggtc tgataccaag cttcaaagac actggctgag aaggcagcat ggaagtttgc 60
agaggagaat ggactggatg tagttgttgt caatccaggg actgttttgg gcccgatgat 120
tccgccaagg atcaatgcta gcatgggcat gtttcttcgc ttacttgaag gctgcactga 180

ggagtataag gattttcttca ttgggccagt ccacgtggaa gacgtcgcat tagcccatat 240
cacgctgttc gaaaaccogt cggcgctccgg gaggcacctc tgcgtggagc ccatctgtca 300
ctggagcgat ttcgctgca aagtcgccga gctctaccct gactacaagg tcccaaaatt 360
ccccgaggac acgcagccgg ggctgg 386

<210> 9090
<211> 399
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-059-Q1-E1-F11
<400> 9090

cccggtcga cgggtaataa attttgcac tactttctgt ttagttgtgt tttcatgttt 60
catttagtgt ttgtgccaag tagaacctat aggataacct atgatatgag ttgatttgat 120
tctgctgaaa aacagaaact ttgcgctcac gagaaacaaa ttgataaatc acagaaacga 180
gattttgcat tgattctttt tgcttatgtt caataaacia attgtttagg acgtcctatt 240
ttggtaggat ttttaaagtt ccataagttt gcgttagtta catattgcta cagactgttc 300
tgtttttgac agattctgtt tttcgtgtgt tgtttgctta ttttgatgca tctatggcta 360
gtatgtatgg gtatgaacca tagagaactt ggaatacag 399

<210> 9091
<211> 389
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-059-Q1-E1-F12
<400> 9091

tgcaccgggg catagcaaaa aagttggagg gaccatcttg tgaagaaaga agagaagtag 60
aagggccaaa gagcaaagca gcagatctga tgcaggggaa caaaatccct agaatgcctc 120
tattcccaaa ggggcctggc acatctctcc atctcatctc ttccccgcct ccttctccac 180
ctccggccgc tgccgcagcc aggccatcgt ggtggtgccc caccagaca acctccttc 240
tccaacacca tcatgcctc cagctaccac gccatcagca cctgccgctg caccattaac 300
cgtgccacca gctccaccgc gccaccgcat caccggtggg ccaccaacca gcgcacctcc 360

ctcacctgc tgctcatctt cttctcccc

389

<210> 9092
<211> 339
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F3

<400> 9092

tgtcagttaa aaaaaatgta aaaaaaaaaac cagaaaaaaaa aaatctaaac atacataata 60
caaggaaaac aagttgagtc agtatgcaaa aaaaatcggg ccgccccaaaa gattcaaacc 120
taacttagcc gttaagtcaa ggccaaagcc ctccaaacag gcccccaaaa tcgactccaa 180
ggccattctt ttaaaaagtt cataacggga aaaacctggg ttaaaccaaa ttaaaccccc 240
ttgcacaaaa tccccttttc ccaaccgggc ttaaaaccaa aaaggcccca accaatgccc 300
cttccaaaaa tttccccacc ctaaatgcc aatggaacc 339

<210> 9093
<211> 310
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F4

<400> 9093

tccgagaagg tcaatgacca aatcgtcctc aaatgcgtac gtcacgcgagc tcctctcccg 60
gttccgccga cgctcatcaa gggccgctgc catgtttcca acctggatat ccggaacttc 120
ctggtcggca tctatttttac cgtgaagggc actatcaatg aaggggtccat attctgaaac 180
cttcccggcc agaaaaaccc ttgtttctcc cagccgtggt tgtttcaccc tgtttccatc 240
ttgcccaccc tcggcgctctt cctgaatttt gccactttcc cataccctga attttttatt 300
cggctttcaa 310

<210> 9094
<211> 438
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-059-Q1-E1-F5

<400> 9094

ggctccttat gacaatcata atcttaaaaa attctatgga aaatttaaga gttccctaac 60
atcaaacacc accttttgtt gtttagcgtca tcgcagtcac tccaaggtaa caccactttg 120
atatgtattg catcaataat ctgctagtta ctgggtgtgtt gatgttggct cctcggagcc 180
atttggtgga cgacattgac acccaaaaat ttgaggagtt ttatgatttt cttgacaaat 240
gggtggcaga tcagcctcaa tctagcagga caagtgggtt gccctcaaag gagaagccag 300
gcagggagaa agcaaagagg aacaaaagta agaagagtgg cgccattcga aaggcgtaca 360
tggtttcatg atggaggggtg ctcagggttt gccgttgctg gtgtgtttgg cangagtgtc 420
attgtgttgt gcaagtgt 438

<210> 9095

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F6

<400> 9095

ggggtcacca tccagcggtc cgagaaggtc aaggacgaga tcgtcctcga cggcaacgac 60
atcgagctcg tctcccgtc cgccgccctc atcaaccaga aatgccatgt caagaacaag 120
gatatcagga agttcttggga cggcattctac gtcagcgaca agggcgccat caaggaggag 180
tagagagccg gaaaccgtcc cgcccaccag aagccgtgtt tctgcctgcc gtgtttgttt 240
catcgtgttt gtgtctgtct gtcgtcgtcg tcttcgtgat tttgaacttt ctctagactg 300
aattttgtag cggaggtaaa tttttagga tgtgccgtgg aacatgctat ctttattgtt 360
atcctgcata tcgtcgccgc cgcgagaaac ggtgcgacgc ttatctagcc ctaaaggctg 420
aagacatgga 430

<210> 9096

<211> 474

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F7

<400> 9096

ggaccacaaa caaacagtcg atcgatgac tcgacaacca tcaacagcag gatggctaac 60
accaccagct ccaccgccct cctcatcgcc ctgctcgtcc tggccggcct cgccgacttg 120
cacgctgcca cagccgaccc gagggccggt cagccctcgg aactctcggg gccggcatgg 180
gtgaccgggc agccaatgac ggccccggag ctggaatgga tgatggagtg catgatgggg 240
tgctggacga cggatgatgg ttgcgtattc ggggtgcgtgg ccaagcccc cgccgacatg 300
ccgctctgct ggttcgccta cgaccagacc tacgttatgg gcatggtaa atgcgccttc 360
acgcctcac cgccagcacc ggcgccaccc aagccgcatg ccccgccgc ccggccatga 420
cacgtaacg atcgagacct ctacctagtc gccgacaatc accatgcatg catc 474

<210> 9097

<211> 467

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F8

<400> 9097

ggggaatact tccaatatca acacacaacg aaggcaacaa ctgtagtacg tacgtaagtg 60
tagcttagcc tctcctgta ctgcatgcca tggcgatgct gaagaagaac acgagctccc 120
tgagcttcgt catggctgcc ctcatgggtg tcatggctgc cacccttctc tactcatgcy 180
acgcccgcaa agtgaaggat aagcccaccg ctttccccgt ggcggggaag tgcttctcga 240
ggtttttcgc gaactgcacc gagccgcggt gcaagaagtt ctgctccag ccaactccccg 300
gagccgtctg tatcgacaaa aaccattggt gctgcctat tgcttagtta taagcgccgc 360
tgaagcagtc aggctaagaa atactagtta aaggtggcaa taagtaatat tcgtacactt 420
ccaaatatat actaccctg tttctaaata taaggctttt ttgcagt 467

<210> 9098

<211> 311

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-F9

<400> 9098

cgacgggcca cgagcgacaa gtttgtgggt gtcacgagag cgatcggcgt catgcaggac 60
 cttttcataa ccaagacttg gtaacaacgt acggagtacc tcgcctaatt tttattttgt 120
 ttctttcttca ttggtggatt tccatcgtgt ctatgagcac aggccttctgg attttgatat 180
 attctgcatt accatgatgt acttatttgt actttgacac tttttctctg tttaatgagt 240
 ggttgtgtgc atcgcttgat gcagaggcag ggtccgttca taaaaataaa gatgttctaa 300
 ttctttgaat c 311

<210> 9099
 <211> 105
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-059-Q1-E1-G1

<400> 9099

ggtggacggg ggaaacaggt taatcaagac cgctgcttac ggtcactttg gccgcgatta 60
 tgccgacatc acctgngaag tggatgaatcc cctcacgttc gacaa 105

<210> 9100
 <211> 371
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-G10

<400> 9100

gggcagagtg gaagcctact tcgacgacgg tgctgggtcg ctggagatca aggtccccaa 60
 gaggagcagc gacgcgcacc aacaagcctg agagaatcgg aacctctcga cgcccgaac 120
 tggattggat cagattaact ggaggaccgc ctcatattgcc ggtgaaaggc aattattctc 180
 cttctgatgt gatgatgagc agttgatggc gactcaaaag accgcgtaat ctctgtagaa 240
 attcggaaaag atatggctga gacgaaaagc agcgaggatt acctacctat ctatccattg 300
 catgatgttg caaatccaat gtagtagtaa aatatgttct tcagttccac tgttaccaa 360
 tgactaatta a 371

<210> 9101
 <211> 398

<212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-G11
 <400> 9101
 cgaccgcgac ggaaccctca cctacggcgg ctactccagc atggtggtgg tgcacgagcg 60
 ctctgtggtc cggttcccg acgcatgcc gctggacaag ggcgcgcccc tgctgtgctc 120
 cggcatcacc gtgtacaccc ccatgaagta ccacgggctg aacgctcccg ggatgcacct 180
 cggcgtgctg ggcttggcg ggctcggta cgtcgccgtc aagttcggca aggccttcgg 240
 gatgaagggtg acggtgatca gctcatcgcc ggggaagaag caggaggccc tcgagaggct 300
 aggcgcgcgac ggcttcgttg tcagcaagaa cgccgacgag atgaaggctg cgatgagcac 360
 catggatggc atcataaaca cgggtgtctgc aaacatcc 398

<210> 9102
 <211> 391
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-G12
 <400> 9102
 cgaccggttt tcacaaatac gatcaataga catgaagaaa gccgggatgc aaaggatata 60
 caaaatatgg aaacttcgga caagtttggt gatcatagga gcattgagac gcagacaaat 120
 ccaattgatc gttctatagc actcttactt tttcatcagc catcagacca agtggttgga 180
 gctgttgaca atcctcgcca ctaaaatctc ataacgagaa ccacaaggcc tatgctaaaa 240
 actaggttgg ttaatgttgc gaaaattact ggagatggct cgtggaaatt caaggatcgc 300
 ctttattcat atgtaatcat catctccgtg aatgcaggag caattgtgaa tgtttatccg 360
 atatggtatg gtatgcaccg ttttaatcgt t 391

<210> 9103
 <211> 249
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-G2
 <400> 9103

tatgcttaat gtcactttgg ggcgcattat gccgacttct cctgtgacgt ggtgatgcc 60
ctcatgttcc atatggcatc tgccataaatt catgggtgttc tcttggtcag ctgcctetca 120
agttcgtcat cacgggtata tgttgctcct gggatgtgag atcttgcatt atttactgat 180
tccacgtct acactggtct tgttctatgt tactcattgg taagtttctt attgtcattt 240
catatattt 249

<210> 9104
<211> 153
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-G3

<400> 9104

cctataaaga gacgtattaa tctcttagtg gtattgttgg tatgaggcct gtatttcgtg 60
tgccctggtg ctacttcatt agtcacgctt tatgaagtat tgactcagga gttactcttt 120
cttgggttct accttatttg cttttaatat gac 153

<210> 9105
<211> 487
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-059-Q1-E1-G4

<400> 9105

cgggtggccg ggaaacaaac ctagacttga cttggcgtaa atctccctag taacggtgcc 60
agaatttctt tctgctactt cttgagcgtg tgttggtttt tcccttgaag aggaaaggt 120
gttgcaggaa cgtagagata agtatttccc tcagttagag aaccaaggta tcaatccagt 180
aggagacaac acacaaatca ccgaatacct gcacaaacaa tcacacaact tgcacccaac 240
gcgatatagg ggttgtcaat cccttcacgg ttacttgcaa aagtgagatc tgatagagat 300
aggtaaacga taagggtacat attttttggtt ttgttggttt atagatcgga aagtaaaata 360
ttgcaaaata gtagattgga aactaatatg atggaaaatt gacctgggag ccataggttt 420
cactagaggc ttctctcaag atagaanata atacggtgag tgaatgaaat actgtcgaga 480

aattgat

487

<210> 9106

<211> 359

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-G5

<400> 9106

ggggagttac atgaccggct gaataaatag tactactgta gctacgatac ctgtagttcg 60
cctgccctgc tgctacttca gtagtcatgc ttgaataata atggtctcag tattaatctt 120
tcgcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240
aaaaaaaaaa aaaaaaaaaa aaaaaaaggg ggcccccaaa aggttttaaac ttttaatttcc 300
gtttaaagaa aattaaaaac ctttcaaaag gggccaaaaa attaaattaa aggggcgtt 359

<210> 9107

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-G7

<400> 9107

ggatcccaa gcatgaactt ttgtgtctcc ttaattcctc tcatatcatg gtttctcttt 60
ttatcaagag cttcattcac aacaaactca acaagaactc gtgagatagg ttagtacaaa 120
ccaatgcaaa accttattat tttttactat aacaaatcac tagaattatt attcaacatt 180
taatactaaa ttcctctgca tatttaatac tcctatcctc aaatagaatc attaaacaag 240
caaacatagc caaacaatgc aaacataaca gcaatctgcc aaaacaatat agtctgtaaa 300
gaatgcaaga gtaacaatac ttccctgact ccaaaattat gaaataaaat tcccactgta 360
ataaatttat cagatcttaa tatgcaaaaa gattcaacat tataccattt cttacttttc 420
tagggaattt ttgcaacagc ggtaaacttt ccattttcaa acagcaacat g 471

<210> 9108

<211> 417

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-G8

<400> 9108

gggccttaat gtatcattgc tctctatgtg ttacattgcc tagcatattc catgtgctga 60
cccgtttcgg gctgcaacgt tcatgttgca gacttttcag acgatgagta aggtgccttt 120
aggteggtgt tctatactca gtgatgccgt tggagttgat ggactcactt atgttgcaag 180
ccttccactg ttatcgttat tagatggcct taagccatat ttattgtaat aagttctctt 240
ttgagacact cgatgtaata agtgtgtgat tgctactctg ttataaatcc ttcaagtact 300
gtgtggtgtc agcattttctg atccagggat gacaccagag cacagagatt ggaccgtttg 360
aggtccactc gctacatcat tgcatatccc ggtacaccgc cataggcatt catagag 417

<210> 9109

<211> 287

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-G9

<400> 9109

cccggctcga cggggtctta tttgaaggat atatctctgc tcaatgtatc tgtcctcttg 60
gcaacaagac tttctgcccc ctgtgacgaa ttgtccagac cagttgcata aatacatttc 120
atggcacgag acaggtggat tgtgcgttta ttttcataaa tatatagacc tgtacgtctg 180
aaagtgttgt tgacatttca tggcgttttt tggggcaaata acatttcatg tttgtatttg 240
tggattgcat cagttccttt gaatcctatc agttgttgct cttgctt 287

<210> 9110

<211> 172

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-H1

<400> 9110

tatctcatag ctaattccca taatcaagtt tattttctcc aatgatcttc gtgaatttct 60
taacaatatc ctccttggat atctatccct ttcgacctag tttcaaagt tgctttaaat 120

aatcccatgc atttatatgt tatgaccttg agcatcatag gtctttctct ca 172

<210> 9111
<211> 199
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-H10

<400> 9111

gagtgaacgc aagtactgct tgctcccttt ctgcgcttcc tttttaccac cgctacttgc 60
ttaagtgtct ttttaagttt gtttttgacc tcgccgttgt agatgggtccc ttttggttca 120
aaggaaaaca aaaaaaaaaa aaataagatt aacaaaaaaaaa gaaaccaaaa atagaaaaaa 180
aaaactggac atcaaaaag 199

<210> 9112
<211> 400
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-H11

<400> 9112

cgacgtacac cgatcacctc gacgtgcccg ggtgggtcaa ggtgaagggtg gagccagagg 60
cgctggagtt cacgtcggcg atggagaaga agacattcac ggtgaccgtg agcagcaggg 120
gaggcgacgc cgacgccggg cagctggcag aggggagcct acgctgggtg tctgaagatc 180
acgtggtgcg gagcccgatc atcgcggacg ccagggttgt cccgacatga ttctgtcagg 240
cgttcgttgt actcagccag cctgggttagc ataagcacia gtatccatac agttcacaac 300
atggagacat tatcgttctt cccaactagc actactcctt gaggtcccga ttgcaaakat 360
gcaatcacac aaatagggca cttatcaaag gaagtcaatg 400

<210> 9113
<211> 371
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-H4

<400> 9113

gacttgtgct catcaactac tcggaggcag acttcaccgt gaagccccgc gaccgcgtca 60
 tacagatgat cgtccagggtg attgcgacgc aggaggtccc cggggtggag gacctcgacg 120
 ccaccgtcta gaggtcgccg aggtggagga cgacgccacc atccggagtt cgtcaagggtg 180
 gaggacctcg acgctttgta catacatcta gggaagtggg ctggttaggt tgggtggtgaa 240
 acgctagga aggtaccaac cttttgttga tggttgtgtg tgtcctcggg atctcttcga 300
 gttgagatgt tgaatgttgc atccatgaac actgcaagtg ttaagatggg tctgtgaaat 360
 ttattttgca c 371

<210> 9114
 <211> 446
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-H5
 <400> 9114

ggtggccggg gagggaatga accatagaga agttggaata cagcagatat tacaccaata 60
 caaataaaga atgagttcac agcagtacct aagtggatgat ttattttctt atactaacgg 120
 agcttacgag ttttctgttg agttttgtgt tgtgaagttt tcaagttttg ggtaaagatt 180
 cgatggacta tggaatgagg agtggcaaga gtctaagctt ggggatgccc aaggcacccc 240
 atggtaatat ttaaggacaa ccaagagcct aagcttgggg atgccccgga tggcatcccc 300
 tctttcgtct tegtctatcg gtaactttac ttggagctat atttttattc accacatgat 360
 atgtgttttg cttggagtgt taatttaatt ttattttgct ttggttgctg tttgaataaa 420
 atcccaagat ctgaaattcc taaatg 446

<210> 9115
 <211> 378
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-059-Q1-E1-H6
 <400> 9115

ttccgggtcg ccggggagtg tgtgtatgtt cagaacagat gtgttttcag aacttattac 60
 ttttgataca ctgccccctt atgttgagca gatgcggatt atatttaggg agattaagat 120

gctcaagacc aaggaatgca tactgaaggc tgccaatgat acccttcaag aaaggcccta 180
acagataaat ggaagcatct attgggtggt actctcactg cttagcaaag agaatgaagg 240
gtcaacattt acggtcatgc tgcccacgct tcggaaaaaa ggcaaaaatg ttttacggct 300
caagcatggg aagtatagac caaagaatgt ggtttacagt ttccctattt tgttggatta 360
gctaattgtg tgatttgt 378

<210> 9116
<211> 444
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-H7

<400> 9116

cccttagggg ttatggaata tttgggtatt tatatagatg agaggcagtg gaaaggactc 60
ctgtgggccc cactacccat cagggcgcgc caggggcctc tagcacgcct tgggtgtcttg 120
tgggccccac aggcctcccc tctcgcaatt ccttgggtcc caagttgtct tttgggcaaa 180
aaaatctcca aaaagtttca ctgtgtttgg actccatttg atatggatat tctgcaaagt 240
aaaaaacaag caaaaaacaa caactggcac ttggcactat gtcaataggt tagtcccaaa 300
aactgatata aagttgttat aaaatgaata taaaacatcc cagaatgata atataacagc 360
atggaacaat aaaaaataat agatacgttg gagacgtatc aactgccag aggcattcat 420
atatagtcct aatgttctag atat 444

<210> 9117
<211> 347
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-H8

<400> 9117

gggacgacat cagacctcac gtcgattgag gttgcttagg aataggctct gcaggagaga 60
actttggtct tcagtttcaa agacactacg ctttcctgcy atacctcacg caaaaccatc 120
aggccttctt gtctcttagt tttcaggacc taacaatttg tggatcatca ttgttaataa 180
gctcatgggc tgggggtgcc acgaaacaga catccgaggg atgaaaactg gttgagattg 240

tcggtgtgta tattatatta ttgtgttgca tgtataagtg aatctcatca ccaagtagtg 300
gtgatgaaat gtcacctgtg tggctgtgta ctcgaaagtg gaaatgc 347

<210> 9118
<211> 406
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-059-Q1-E1-H9

<400> 9118

cggtctgacg gggctgtaga atacatgccc gaagaggagg tgaagagcac agctgcggag 60
cgactgaaga tatccatgga gaggatagcg ctactcaagg cagccaaacc taagatgccg 120
cccgcgaaaa ccgagcaaga ggaagaggag aggaagcaga gcgaggagt ggacggattt 180
gggaacccca agggccctc cacgctctcc aagctcacag cggaggaagc cgagcaccgt 240
gccctccaag cagccgtgct ccaggagtgg caccagctgt gcaaggagaa agtcatgaag 300
gcacagtgag gcctggtctg cgctccgct gtataat tttt gtacctgcct tttcctcgag 360
ccacattttg atttattttt ttcagccgtc cgacattttg attttt 406

<210> 9119
<211> 409
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A1

<400> 9119

tgcacgggga ccaatctgaa aagccatgca attcacggcc tcccaaaaca atgttgggag 60
ccatgcatgc aatgtggaac atagaacgca tccaagggtt cttcaaaggg ttacatgctc 120
agatactaaa gacagttctg agctccgcat tactgctgat gataaaagag aagatttcaa 180
agttcacttg gatctcgctg cttgctctgc ggcgatatct ctttgtttct cggaagaaaa 240
tcaacagtgc agagttgtat catgcatatg tcatactga gaaaactagt ctaatcgccc 300
actggtattt caagatcgta ttacaccaca tagtagaagt acagaatcat aacatcacga 360
tcaacttgag atccccatgg aatgttctga aaaaaattgg tcggttttt 409

<210> 9120

<211> 194
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-060-Q1-E1-A10

 <400> 9120

 ggggtcgctg cactggttca gacgtcggcg gtagagtatg gcagctgact tcaccgagga 60
 gcttgtgtca gactcgatga ttagtaggat caatttcttg tctaggacgg gctcggtcatt 120
 ggatccgagt ggggactcta ccagcccgga ttcagcctca aagagtggcg gcggttcggt 180
 cctcaatagg ttta 194

<210> 9121
 <211> 303
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-060-Q1-E1-A11

 <400> 9121

 tcgacggggtc aaaagtgaac gtgaatggag gagccatcgc tatggggcat cctcttggag 60
 caacaggcgc ccggtgcac tcgacccttc tgaacgaaat gaagcgccgg ggcagggact 120
 gcagattcgg cgtggtgacc atgtgcatcg ggtccggcat gggcgcgggc gccgtgttcg 180
 agcgggggga ctcggtggac gagctctcca acgtgcgcca tatctagtcg cacaatttcc 240
 tgtccaagga tgctgcagag tacacgcggg cgtgaaacga agtccatcag cctcacatgc 300
 agc 303

<210> 9122
 <211> 423
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-060-Q1-E1-A12

 <400> 9122

 caggttacgg tacggagttc cggcgtcgac gggaggccag gcatcgcgcc ggccttcagg 60
 aacgccgacg gcggcaacgg caccatcaaa accggcaacg gctaccgta cgccagggtg 120
 gcgacacca aacggtccaa ggtacgtgcg tgcgttctct gcgcgcgcaa cgggcgtgcc 180

ttggtttatac gcgtgcattg acgccaccaa ctttttgtcc gcagaagaag agctggttct 240
cctgcaccag ctgccgattc tgatgccgta gctgcttgcc gtcggtggtg agagagatcc 300
gataacttcgc cgcgccacga ccagatgcac gtactcggcg ggaggcgacg gtggaacttt 360
tgggcatcgt ggtgcttctg accctgctcg gtcgccgcat ctcacgtgca gaacatcatc 420
cat 423

<210> 9123
<211> 404
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A2

<400> 9123

acggcgacga accgatctac cttgatctag cggcagagga gactagcaag ggctggattt 60
gattctctgg gtatttcta atataacaac aaaatttcat aatacaacca gtgatgattt 120
tccaatcaaa cctatataat tgcaagctaa atgccaatcg tttcattata caatgatcgt 180
tcttgatata ttttaatttt ccataggaca tttcctagta gcaaggattt tcatgtcata 240
ttttggagta atttgattat caacttcgtc tactcgttgc gtatgtgaaa ttattgccct 300
atattagctg tagctagaca cccgctccag ctgcaaaaaa agaagtgtgt gtctatgcat 360
gaaatgtgaa tattgggtag gttctttgaa gcaaaaaaaa aaca 404

<210> 9124
<211> 400
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A3

<400> 9124

ggtcgacggg tatataggag aaagaagtac gtcggtggac gcccgagggg cccacgagat 60
ggggggcgcg ccctatgggg gggcgtgcc tccaccctcg tggccgcctc gggagcttct 120
tgacttgac tccaagtcct ctggatcacg ttcgttccaa aaatcacgtt taattcctgc 180
tcaccttga gtaggtaa at gataaaaaca gaatttttga tgtggaatgc tacctagcat 240
aattctcaat gtaattttct ttattgtggc atgaatgttc agatccaaat gattcaaaat 300

aaaagcttat aagacataaa aatagtaata ctcaaagcat actaacaat aatcatgtcc 360
tatcaaaata acatagccaa agaaagctta tccctacaaa 400

<210> 9125
<211> 350
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A4

<400> 9125

gacggggggg gattcaaccg cgatagcttc gcgatccgct cacgctatct gagatttggg 60
cgcggggtcat gcctgcagct cttgcccata tggctctcgt tttgcattca cgcaccggca 120
acatgaatgc cgtcaaggca cttattgctg cagactactg tgcggtcaag gtttagctcc 180
ccatgaactt ctagatgggt gtatcatata aaatccctga attcatcaag atgaaccccc 240
ctggtaatgt tcctgttctt gatactcttg atgctaattg ttttgagagc agtgctatta 300
catgctatgt tgctcgccca aacgggtgaca acctgtttta ggggtgtctc 350

<210> 9126
<211> 371
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A5

<400> 9126

tgttggtgctg gtggaccatc gcaggatttt gctctcgagg aaagaggcca tcacaaagca 60
gggtatacatt tggattatca agtaacagtg tgggtttaca catactcttg gacaagtgcc 120
ctcggattca taagactctc atgagaagaa agtaaagcct gtctgaagaa gctgctgctg 180
cctaattgtag ataacatagc cgttgggttg gaagtctgca tcaaatacaca ttttcttatt 240
caaggggttg gaggagatgg tggtgtttta attcttttagt tggtgatgat ttctctttgg 300
ccccagcagg ggatggggat acttggtgcca tgatccaaaa attgtcaatg tgggttttgg 360
ggggttgctt t 371

<210> 9127
<211> 399
<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A7

<400> 9127

```
cgacgggcg gcagcactgc ggttggcccc agtcgagcgt tacgtcagac gggcgtaaga   60
ttaggggaaa gcaccgcgag gggaggaggc agcgtaccta ggatggcgag ggatggctgc  120
tgcgatgcc a tggccgactg cgcgagaagg tctcggcgac cggcgagag atcacaagcg  180
gagctgcggt ggaggcggcg gcgcggcgag gggactttgc tggatgcggg tggatgcctat  240
gtcatgcctt cctcactgac acatgggggt cattgggttg tgggcctcag tttttgtag  300
ggaattgtgg gccttagttc gtagctacag aaacgggata aaaacgtcgg caggctaata  360
aatagattgc gctgcattcc tgggaaatgg gccagccca                               399
```

<210> 9128

<211> 379

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-A9

<400> 9128

```
cgacggagcg aaaaaggaaa agcaagacgg ctccatacgc cggcggcaga aagtggaagc   60
tgacaccaac gacgaccttc tgtcggactc gatcaagatt atcaacagtt tctgcccag  120
gccggtctcc agcatgcgtc tgagtacgga ctcgagcagc ccggattccg ccgcgaagag  180
caatggcggc tcgttcctcg atgggttcaa gtccgtggtg cggaggtcac cgagcgcgcc  240
gagctttgcg gactcggaga acggcgccgg ggcctccatg tggtcgagct ccaagtggac  300
cttcaaccac gagtccttca cccgtccggt gctcgatggc ctgocccaagc cctcgcccgg  360
ccgcaggatg aaagctgct                               379
```

<210> 9129

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-B1

<400> 9129

cgacgggcat gcatgttagc agaccatttc acaccactga tgtggcacgt gcgtcaagaa 60
 tcgtacacga gctccccaca cagatcacga tcagttcagg acgtgtcggg gcacgagcca 120
 cttcgacgca ttgggagggg ttcattgcgta cacatgcatg tgtgtgtgcg caaacgggat 180
 catgcatgtc atcccagagc atgacctata tatataccgt attacaagca aaaaaatccc 240
 ctccctaagtc aaattaacct ctcttggtgt caggcaaaaa gtactgatgg accaagcggg 300
 cccacagatg gaaagcatcg atatcgctga taacctctta agtgggtgcc agaggacaac 360
 caccaccgct ttgcatgtgg gccgaacata tacatgttg 399

<210> 9130

<211> 386

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-B3

<400> 9130

gctcgacggg aagttacaga atgaggacgg ttcattggtc ggatcatggg gtatttgctt 60
 cacatacggc acgtggtttg ctatagaggg cctatcggca gttggacagt gttacaataa 120
 tagcacctac atccggaagg gttgccagtt tctattatca aagcagctaa ggaatggtgg 180
 atggggtgag agtcatcttt catccacaac caaggcatac acgaacctag acggggagaa 240
 atcacatgta gtcaacaccg catgggcaat gttggcacta atgaaagctg gacaggccga 300
 acgagatccg tctcctttgc acgaagctgc aagacttatt atgagcatgc aacttggcaa 360
 tggtgacttc ccacaggagg aatga 386

<210> 9131

<211> 365

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-B5

<400> 9131

tcgacggaga ggattacaga ctgttctgtt ttagagagat tctgtttttg atgcatagtt 60
 tgcttgtttt gatgaaacta tcgattcata tcagtgaatt aagccatgaa aaatttatat 120
 tacagtagac acaatgcaaa aacaaaatat gaattggttt tcaagagtag ttagagtagt 180

gatttgcttc attataactaa cggatcttac cgagtttttt gttgaagttt tgtgtggatg 240
aagtgttcga taatcgagaa tgtcttgatg tgagaagaag gaagagaggc aagagctcaa 300
gcttggggat gcccaggga cccaagtaa atattcaagg agactcaagc gtctaagctt 360
gggga 365

<210> 9132
<211> 390
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-060-Q1-E1-B9
<400> 9132

tcgacggaag gaaaattata ctcatatcaa attcgtattt gaacaaataa actatggaat 60
tatgagtggc ataatgttta gcttcaaggg tggagtgctg gtaatgcatg acatagcaag 120
tacgcagatt gtattccatg taaaagattg tagtctatgt aaaagctgga aatgacactt 180
tctttctata taatgcagtg ttcgttgccc acacatgatg gaagagatca cccagagaaa 240
tactagtcac tcaagtctac agttccagta ttttgagaca ggggtgtcca ccctaaaaga 300
atattgagaa aatctggaaa tgacactttc tttctataca gcgcagtgtt cggtgccgag 360
atatagatgg aagagattac acagagaaat 390

<210> 9133
<211> 411
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-060-Q1-E1-C1
<400> 9133

cgacgggggc tcaactgaaga tggaataggg tttttccgc ctagtcccat cccggtggtg 60
cgtctagcat cattgatgga catgtggacg tgtgtctacg gtgtatatgt ctttgggtgga 120
tttgcttata tctttagtc ttcgtctac gttcgtgtgt cttcaagttg gatccttgcg 180
atatacgcta ctcttcatcg cgggtggtgt tgttctggtg cgtagtcct atgggtttta 240
gcacgtttac ttcctgactg tctactgcaa caagttttgg ccagaaaagg cgatgacgac 300
agtgcgcctt cgggttcgctt caatgcttat agtcgtcgct aggtgatctg tgaatctaga 360

tgtattttttt attacttttta atgtttgttg tactatcatg atagaataaa a 411

<210> 9134
 <211> 398
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-060-Q1-E1-C11
 <400> 9134

cagggtatcgg aaaggaattc cggcgtcgac ggagatgtat agattggtct tgctgttgaa 60
 agacagaaga gtcagtgcg gaagcagtag agtttgggtg cgttcttata tcttgcgtgt 120
 gaatatcact actacttgcc attagtgcga tgttgctgac tttcaatttc ttgtatcctg 180
 gaaatgcttt ctaagtacat aatatcatat gcaaacctta aattgtgtgt gcaaaaaaaaa 240
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa acaaaaaaaaa ataaaaaata 300
 aataaaaaat aaaaaaaaaa aataaaaaat cacaaaaata taattaaaaa ggccgtcatt 360
 ataaaaaaat catgtcaggg aaaaagccag gggtaaac 398

<210> 9135
 <211> 391
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-060-Q1-E1-C5
 <400> 9135

tcgacgggga acatggggcc gtcacacttc aaatcccggg caagagcgag aactggaggc 60
 caaaattctt catagacaga gacatctgca tgcttgccggg taaatgggta agctttgtat 120
 ttgacatcca tcgtgcaggt cggcgacatc aggaacattg taccggcaat ggggtggggaa 180
 aggtccacat tcatgggtcca tatagggtcgt ccataaccta ctcatcgaat ggggtgttaaa 240
 agggttcgat ccagccatga ctctccgggtt ggcgtggaag gaatgacaaa tccagatgcc 300
 gtttaggaat cgcaaaccga tggatgctcg caaatgggtg gaggcaagtt tgtccacggc 360
 aacgggtctgt gttccgggac atgtgcctgt t 391

<210> 9136
 <211> 388
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-C7

<400> 9136

```
tcgacgggac aactgtcat cttctgcaa caattggact cttccaacg ggggcggcca   60
cgcttcaggc tactcaaagg aggctgaccc aaccacagct tgaaagctga atcactaacc  120
acaacatcaa catccaacct cttttgacat ttgcaatccc agttttcaca ttaccatcct  180
ttcccacctc tttttgcttg tgggtgtttc ggagtctgta gctatttagt actttctatg  240
tcgtgggcta ccagaggctc cctagaggct gcaaattttg tcgctgagta gaaccaaggg  300
aaccgactga ggggtgtccc agtttctcct gaggctatat gcgtgtatta actgaaggcc  360
gtggaaggca tacctcgtgg ggagccct                                     388
```

<210> 9137

<211> 320

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-C9

<400> 9137

```
tcgacggaca ggtaccggcc ataatcgaca ccgagatgac ggggatggtc tccatccgcg   60
acctgcttcc cgctgtggtc accaagtaca aggatgagct gaaccagcgc agcacgaaca  120
tgtacgtgag tgttgacgac ggctgctct cgctcgccgt ttcgccgaag tagatcaacg  180
acttattata tgttaagatg ccggatcaga ccgtgtatct tcgcacacac cggacgcaaa  240
acgcaaacat gtgtctcata cctcactcct gcttgggtaa tgtttctttc cgtggcctcg  300
cgatcctccg cagcgttccc                                     320
```

<210> 9138

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-D11

<400> 9138

```
caggtatcgg aatggaattc cggcgtcgac gggacttagt gaatcttgat tacagaaact   60
```

tttcaacaaa aataattatc ctcttgtata attccattga attataaaaa taatgtgcca 120
 aggtttgcct ttaggatgtt tacaatgctt gttggtttgt acggtgcagg acagaaactt 180
 tggctgtagt gcgcaatttt atatttttta ctggaacgtc aaacggttct gattcttttt 240
 gcactgcctt tctgtcaaat tgtttatttt cctaattttt gtagaatttt tggggcacia 300
 aaagtatggt gaatgttcag attgctacag actgttctgt ttttgacaga ttccgttttt 360
 gatgcatagt ttgcttggtt tgatgaaact atcaatttct atcagtggat taagccatgg 420
 aaaa 424

<210> 9139
 <211> 385
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-D2

<400> 9139

tgcacgggga agtactctgc acatttcaga ggccagtctc acttcttcgg atatgaagga 60
 aggtgcggcc tccctaccaa ttttgattcc agctattgct atgcattagg ctatggtgct 120
 ggtgctcttc tccaatttgg caagacagga cttatttcgt cgggttggtaa cctggctgct 180
 cctgtggaag aatggactgt tggaggaact gcactgactg cgttgatgga tgttgagagg 240
 aggcattgca agaacaagcc agtgatcaag aaggctatgg tggaacttga tgctgcgcca 300
 tttagaagt ttgcctcgct gcgagatgaa tgggccagca agaaccgata catcagccct 360
 ggtcccatcc aattcagcgg gcctg 385

<210> 9140
 <211> 179
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-D3

<400> 9140

cgacgggggc aaaaggaagg tagtacattt aagtgccgat tttcatgtct tacciaagca 60
 tccaagtcac cgttcagcgt catgacatgc aatcagctt caatcttgat ctctggacta 120
 aagtcgggtt gtcacggtaa gataaaactg tactatattg attaatgcaa acatcaggg 179

<210> 9141
<211> 359
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-D5

<400> 9141

tgcacgggcg ctttagttcg cagctggtcg ggatgatcaa agcctgtata gtcgtggggg 60
ctaateccaga tcgcttcgat catgtcgtgt aagatcagct ggcgggccgt cgtgtggtaa 120
acttgtcagt gggagtcttc agacgtggcc tctggtaagc ctcttgagc atagccatct 180
ttcgtcactc ggagatggag cgatgtggtc aggttttata ggacttcac gcagtcacga 240
acactgactg gagacttagc tgcatatagt ccttgcgagc ctggcatagc agttgacgtg 300
tttgacgctc agcctaaaca gctcacttgc acaacatata acgctgcact gctctcggt 359

<210> 9142
<211> 393
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-D7

<400> 9142

tgcacgggag ataacgcaac tctggcaatg gcgaggatcat gccttggagg gtgcctgtag 60
gtaatccggc acgtctgaac gatcgctact ggcactctggt gcgccacgta cggctctatgc 120
agggagtggg catgtatgtt ccggcatgag tccacgctca cattagtaga atcaaagagc 180
cacacacact atggccgatt gcattctgta ggaatactgc cacgtcgtgc taacggccgg 240
agcagttggt tgcaacctga acggatggac tcaactgttg atggagggtta cgaacgtcag 300
gactctaata atgcatttag caaacaagta gtggctgaag ggcctagtga ataggcgaac 360
cggcggagca attcatgcat atccgtgctt gca 393

<210> 9143
<211> 400
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-D8

<400> 9143

tgcagcgggaa gcaaacgtac tgcagagacg ccatggtgag aagactcccc aacaccattt 60
ggccaaacgg ggcctttgtg gagactgtca aggtgtggca ataggagtgg ttctacatca 120
ctgaaccccg caaggccaaa tgggcggcca gtcctgattt aacatacgat gccccctaag 180
tgaatcacct catggaccgc caatggtctg gactatggat ccgcagccaa tctattgatg 240
ctgcaaaaat gcatcacaaa catgattaag aagaacacct gtctcactaa catgattcag 300
gtgatgctct tctgccggat tcttcctgc caactccgat cctcccatat gtgggagttc 360
aatctggaat atcctccgac actaaagcac ttcttcggca 400

<210> 9144

<211> 330

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-D9

<400> 9144

tgcacggaga tgatgtttcc atcgtagaat gcttgaaaca tcctgtttat atcactgagg 60
gctcttatac aaacatcatg gtgactactc ctgatgacat gctcttagct gagcgtttga 120
tgaacgataa atagggccaa tattaacaat gtttacttga tttgagaggc acctgtatga 180
atttgtcagt acgacattcc attgcctttc cacagttttg gcctcttggg aactagaaaa 240
gtaaacatgt agctcataca cgagatagat aacctgtatg taacattctt tccgtggcaa 300
tgaatatatg gcaaggtttt ctgtttgaaa 330

<210> 9145

<211> 386

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-E1

<400> 9145

cgacgccaaag aaaggccact atcaatgtat catcagtatc aatcactaca tgacaccaca 60
caacagatat gctgctgtca gcagtcctct ctaaataagac actgcaatta tcgtataagt 120
acatcattgc tgctgtcagc agtgctctct aaatagacac tgcaattatc atgtacatca 180

ttgctgctgc aatgaaccat taagaattat ttaaaatcta gcctaccatc tgcgttgctg 240
tcaacagagg gttgaggcgg agttacaaaa tctgtatgag aaaccgaggg attgtccgag 300
tcagcgacat ctttgttatc ttcagagctg tcagaagcag ctgagatggc gtcacctgat 360
tctgaatgtg ttctgtccac atatgc 386

<210> 9146
<211> 251
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-060-Q1-E1-E2
<400> 9146

ttgacagggg tggctgagat gagggatagt gtccgggtcat cactaggggtg gaactgaaac 60
tatcactata ggtagacata tgtgatgtga gcagtgcgcg gtaaactgat actgtaatta 120
tgatgtagct cagtgtagct gctgtgaacg tctcaacatt ggttttttatc taccctacca 180
gctgcgttgt cttcaacagt tgggttaatgc gggttttactc actgggttta agtagcagaa 240
ggattttctt a 251

<210> 9147
<211> 389
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-060-Q1-E1-E3
<400> 9147

ggcatgtact gatgggtgct gttccattcc cgagcgatgt tttgcggctg cagaaccttg 60
gattttgtgg tgtggtcaca ctaaacaat catatgaaag gcttggttcc aagtcactgt 120
acgaggctca tgggattgaa aacctggtgc tgccaactag agactacctt tatgcgccgt 180
catttgacaa cctttgcaag gctgctgact tcatccacag aaatgcttca tgtggtaagc 240
tgacttatgt tcaactgcaa gctggacggg gacgtagcac caccgttggt ctttgctact 300
tgggtgcaatg caaacaatg acacctgctg gagcttttga acatgttcgg tcatgcatgc 360
caagggtggt attggcttcc gcacaatgg 389

<210> 9148

<211> 396
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-060-Q1-E1-E4

 <400> 9148

```

cccggctcga cggggtgaaa agctacttca acaagtccat cggcaggccg gccagcaaca   60
acagcagcaa caacaacttc agcgggtacg gcggcaagaa gggcgctgcc gacggcaaga  120
agaagcacgc caagaacgag cgaggggaca acaaccatgg cgcggcctcg gagaagcggg  180
tcaagacgct gccggcgctc gaggcgctgc cccggaacga gcccatcggc ggctacatct  240
tcgtctgcaa caacgacacc atggaggaga acctcaagag gcagctcttc gggttgccat  300
ccagatacag agattcagtg agggcgatca ggccgggggt gcccctcttc ctctacaact  360
actccaccca tcagctccac ggcattctcg aagctg                               396
  
```

<210> 9149
 <211> 386
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-060-Q1-E1-E5

 <400> 9149

```

cgacggggaa gaaaggatta ggaaggttca ggagctgaag gcgaaagcga aggctgcttt   60
ggagaacggc gggtcgtcgt gcatgaatct ggacaagctg gtccaatccg tcgtctgaaa  120
attagcgcag catgtcggcc cagaataaat tctgctgctt tcgctcattg atggacatat  180
tggggctggt tcttgcttga ttggaagatc aagactatgt tgcaactggt gtttagctgc  240
aactgtgtct catgccaaact cagtcacaaa gtctcttggt tagcgctgcc tgctcgttaa  300
aaaaagataa cgaatccggc aggtgctcta ccatttgaat aaggaaagtc tagagaatgt  360
ttgcaaaaat caacaattca acaaaa                               386
  
```

<210> 9150
 <211> 387
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-060-Q1-E1-E6

<400> 9150

cgacggggaa caacagaaga ttigcctgat gacctcgtag aactttataa gacagatcct 60
gaagagaatt atcatcagcg caagacacgg atccaacgga ttcgacgata ttgggctgaa 120
caatgggttca aatgcaagtt cgtgaccag gaatatgctg agaagaatgc tataaaaagt 180
ccttgggggtg atattctcta tcgaggcctt catcccaaga acagagctga agctattgca 240
cagggtttct atcactgtat ggtccatgga cctcagcctg aaaatgccta ctcaacatca 300
ttgctctggg gtcgtgacga caatctcttc aagcgtaact ttcagcatgc aaaggcatcg 360
gccaaagaat acaagaagtc attggga 387

<210> 9151

<211> 299

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-E8

<400> 9151

tcgacggagt agaagagacc gagcacatgt aatacgcaact gtcctggatg atgctccaat 60
tcttctcacc ggggcatcac cagcaatgac gtctcgtcgt cgtaagagcc aagcacaccg 120
ccgcatctc cttgggcctc actggagcat acgttgcctt gtcggttgct gcggacctga 180
accagacctc gctccgcgtc aacgatatga caatgcagct caacgcgcac gtgagcgata 240
aagtcggtga cgtgggtgcaa cgcatgtga tgatcgtcgt ctacgaagcg atcgacagg 299

<210> 9152

<211> 86

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-E9

<400> 9152

tgccattcga tagctcggct attatgtaac aggccttcaa ttcattggcc gtcgattaat 60
tgcgtagcca gtgggaaaac tgggac 86

<210> 9153

<211> 370

<212> DNA

ggatgcaaat aaatgaaatt aagaaagttg aagcaggact atcagtaaga ggggaaggctt 60
 gaagttgagg caactgtctt gtataacatt ttctgctttg tgtctgcaac tgttttctta 120
 cttctaagct tatgttgtaa gacacctgct gtaaacattt gagtgagatc gaattactgg 180
 ttcccatatg ttctgatgtc tattttataa atgtatacat aaactgttga tgcacaatat 240
 ttgatctgaa aataaagtaa taccttcaca aaaagaaatt aaccaacagt aaaaccgtca 300
 gacatgtttt ggttaccaac cgactcagat aaaattgacc acacttatac ctgaggggttc 360
 cccgttgg 368

<210> 9156
 <211> 392
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-060-Q1-E1-F6
 <400> 9156

tcgacgggag acaggacacc ttgcctcta tcaaaccac aacttgaaa gttttgaaag 60
 ctgtaatgag acagcaattt ttctcctta ctatcgctgt gaattgcgtc gcaaattgga 120
 gaaattaaaa cacggcagta acactgttca tgcttactac caagagttca aatcttatat 180
 gcatcattgt gacatagaag aatccgagga tgatacaatg aatagatttt ttggtggttt 240
 gaaccatgat attcatgcaa gatttcagta tattcctcgt tgcattactg atatgtatgt 300
 ccgtgcttgt acctttgaga gacatataca ggaggatgca ttgggtgact acaacaacta 360
 ttattccagt tcatgctcac caccgccggt tg 392

<210> 9157
 <211> 395
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-060-Q1-E1-F9
 <400> 9157

tcgacggacc acaaggggaa ggggctgttt cagtggcacc atcacgactc gcacaccaca 60
 ctctcgctcc acctgaggtg gccatacgtc gccaacatgg ccatggctag atttgcaatg 120
 acctaatgtt tcctgtccac cactggaaga aactgtcct ggacgttgat ccgtttgtcg 180

tcaatgacga cgaacacccat cagcggccga ctacatcgtc atttctccgc aaagtacacc 240
gcttaaggac acaaccataa aacaaccttt atgtaccagt cgcggggactc tcacattata 300
ctttagtccc attcttcata ttacactgtt attcagccct taacgacaag tcgtctcgac 360
tagtcatttt tcacagtaga cctccctctc tctaa 395

<210> 9158
<211> 407
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-060-Q1-E1-G1
<400> 9158

cccggtcga cgggatgcaa aggaagagag ttagacttcg tcgttacatg atatatgctg 60
ctttgtgctc gctactaaat tacaataat tgctaattaa aattggcttt gatatacctt 120
gggatccggg tggattcact acttgagcac tatatgccta gcttaatggc tttaaagaaa 180
gcgctgccag ggagataacc cggaagtttt agggagtcac ttatttctgt tgagtgcctt 240
catatagttt aaaaataaca aaaataaaga ggggaaccca aaactttttc aaaaaggaaa 300
gtgaaagtga gaaagacaag cattgttgaa gtgggagagc tccttgaact ttgttcatgc 360
tcacggcaac tttgtgaatc ttgattacag aaacttttca acaaaaaa 407

<210> 9159
<211> 182
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-060-Q1-E1-G10
<400> 9159

tgagtcgtat tagaatgctg ggatgtagcg gatagataat gtatggaaac ttcggacatg 60
tttgttgatc ataggatcat tgatacgag acttctccag ttgatcggtc gatagcattc 120
ttactttttc aggagctatc atggcaagtg gttggagctg ttgatgggtc tcgctactaa 180
tg 182

<210> 9160
<211> 394
<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-G12

<400> 9160

```
cgacgggagc taaatcttcc ttctgctaata gaattgatta gttctcagtc aaacaatgag   60
gcaaatggaa atctggaaaa cacacaggaa gtgcaggtga acccaacgag cttatctcaa  120
tacagggaca tccagagaaa gattgttgag tttatcagaa agagatacca tattctggaa  180
aaatgcttgg acattgaata tgccgtgata aaaacaaata ctctgttcc tgatgatctt  240
actgaacaaa atgttcctat gggacatagc ccagctgttc cagatatcag tgaagtgttg  300
agagaacttc cccctcttgt accaatttct gccaaagaag tggcttctga tggctcaact  360
gaccaggcac acctttccca tctttacaac aaga                                     394
```

<210> 9161

<211> 363

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-G2

<400> 9161

```
cgacggggat ttaggtatgt gcagtacttt gatcccaacg atgcggcaga cgcaaaatac   60
tacatggatg gacaggtcat tcttggtaga gaagttgcag ttgtttttgc acaggagaac  120
agaaagaagc ctgctgagat gagaactaga gaaagtagca gaggtcggtc ttacgatcgg  180
cggcactctc cttccccaag ggggcggcca tcttaccgcg gccgaagcta ctcaaggctc  240
ccatcacctc ggcccgcaag gcggaggttc agagacgagt ctccctcgcg ctcccgctcg  300
cccagcggat cgaggagtgc gagtccattg gatgggaagt acggcaggtc ctcacgaaga  360
gag                                              363
```

<210> 9162

<211> 273

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-G3

<400> 9162

tgatctactc ttctacgata catgagacat gctgctttgg gttcacgact aaactagcca 60
 ttcttgctat ataacatcgg ctttgttata ccttgggatc cggttggatt catgttcctg 120
 atgcactatg tgccaagctt catggcttta gacagatctc tgccatagac atttcccgga 180
 agttataggg agtcatttat ttccgtctac tgctttcaga ctctttaagt cacaacatgc 240
 atgactatgg gaccccaaaa ctttttccgg tcg 273

<210> 9163
 <211> 344
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-060-Q1-E1-G4
 <400> 9163

cgacggggca agaggtgagg atctctggag ccttgatgag ctcttcatgg cggctggtgg 60
 ttattgatgg ttcttgctag tgtggtctgc ggatagcaca aatgtccctt gcatgtggcc 120
 aagatgaaga agtggtggtg catgtggcca ggatgaagga taggttgcat ctgttatgct 180
 tggtagcgga tcaaacccta gctatgctaa agactgtatg ctgctagcag tggaaccgta 240
 tgtcatgttt ataagtatgt tgttggtgta tatcgccctt atgattgggt gcatgttgga 300
 gactggagtt taataaataa atacattggt catatgcctg atgt 344

<210> 9164
 <211> 409
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-060-Q1-E1-G5
 <400> 9164

ggaattccgc cgtcgacggg acagcagtca gcacatgcca taatgctccg agaaaatttg 60
 tggtcggctt acaaagtgtt ttctcggtat acgcatgaa aatcgaattc gaaatggtat 120
 gaccgtgcaa gttgagcatg ttttaatgta attgtgtaca tagatggcta attgtttcca 180
 agttgtttta ttttataatg tgtgtactcc gcgactgagc tgtacatttc cttctgatcc 240
 tgtattcata tgcgggcact atttgctcca tcaactaaatc tgaaaaatcg tacggtcggt 300
 agggggcgat tggctctggg aggcgtgggc ctacgataaa aattgtggag gccacatgaa 360

agtctgcggg ggcaaatcga ttggaatcag ggttggcaag gattcaact

409

<210> 9165

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-G6

<400> 9165

cgacggggag taaactccaa gattgggccg cgagcgtgtc ggcaatccag gacgcggacc 60
tccgacaaga attctttcgc atccaggcgg agtttgcgga aatcatccat caagatgtcc 120
ttcgtacctc ggggcagttc tacctcagaa atcaaccgtc caacagtgc atcgacacaa 180
tgctacaaat gcaggatgac aacgcccgtt ctttcattac tcccacgata gacggcggct 240
tcatccacgc tccggtcctt tgagtcgagt tgtctagttc tgaaacatca attggctcat 300
gttgtaatta aactttaatg aactttagt atgtctcttt ggttttgaga gtcgttcaac 360
ttagatgtaa tcgatgctat taatgtcttg cttttct 397

<210> 9166

<211> 404

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-G7

<400> 9166

tcgacaagtg gcaacgggtg atccgtatga tgattgtgat atcaagatta ggagggtgaa 60
tgttagagct aatcttgata tttgtattag catgtttgag ttttgcatgt agtctagtct 120
agtgtggtgt tcgtccgacg aaggtttcag gtgagcgcgc caaggagggtg agatgccagg 180
atgccgtgtg aggcggcgag cacggcgaga tgccgatggt gctgcgtgag aagcggcaag 240
acgtatcaga ggctggagcc gtgatggact gcatcaaatt gggtcgggtg aaccggccgg 300
tcgttctgtt tgttggacta gctgttcatg cgtgagttcg tttagtccta gctgagagta 360
tcgttgctag tagttgatgc atgcatgtag ttggcctggt caca 404

<210> 9167

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-G8

<400> 9167

```
cgacggagac caagggaccg gctggagggt gcggtccggc aggtggcgag gagttgtttc   60
ctggaggggtc tctgctagga ttggacggct ctatcgggag aggcttatcg gagtccaatt  120
ttcacctttt cggggccatt gtttttgggg atatggaggg ttgagtaaga tggataacaa  180
aagtcacctag ttccacagga ggcttctact cagcacactt tgatagatga tcagctatgc  240
tgttttccgc atgggggatg tgctctatct gcaatccatc aaagtgttcc tccaatcttg  300
tcacttcctt gacgtatgcc tccatcaatg ggctttggta atctttgttg acttgtctca  360
ccacgagctg tgaatctcct caaatgatca gcttcttaat tcccaattat gcggc      415
```

<210> 9168

<211> 343

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-G9

<400> 9168

```
gacggagacc aagggaccgg ctggaggggt cggtccggca ggtggcgacg agttgtttcc   60
tgcaggggtct ctgctaggat tggacggctc tatcgggaga ggcttatcgg agtccaattt  120
tcaccttttc cggggccagtg tttttgggga tatggaggggt tcagtaagat ggatagcatg  180
agtccctagt tccacaggag gcttctagac agcacacttt gataggtgat cagctatgct  240
gtgttccgca tgggggtccgt gctctatttg cactccatca gagtgttcct ccaatcttgt  300
cacttccggt gacgtatgcc tccatcaata ggctttggtc atc      343
```

<210> 9169

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-H1

<400> 9169

```
gggatgacat tgcaagattc tcggggaatg aactacgata gtaagctcca aaacatgagc   60
```


tggttctgct acaaacaggt gaacacgttg tcccagacaa gcatgaccac gtggtagtct 120
 tacaataaaa cactaccgag ttctgggttg gaaccatcac cgtgggtaac gaagtccttg 180
 cataagtcac atgattagct cttatgaagg aacttcttct ccttgaacaa atcaatcagt 240
 ggcttggtgt gctcgggaca catatggaat gaagggtgca agtctccaga ccacagaata 300
 cttcgcacgt gtgcatgact gatttgggat gattccaagg aaacaaaaca atcttcctcg 360
 aattcatggc ggcaacttgc atcagatgca ca 392

<210> 9170
 <211> 377
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-060-Q1-E1-H10
 <400> 9170

tcgacgaggg ggaaatatga cttatatgc aattggctcg gaaactcaag gtgggtccac 60
 tccatggaat ggtctggtca gaaagacttt gccaaaactg ctgaatcatc gtttttagta 120
 gacgatgccc aagctggagt cttgaagagc cacggggcac tcagcttcct caagggtcac 180
 aatgctggcc acatggttcc gatggaccaa ccgaaggccg cccttgaaat gctgaggaga 240
 ttcacccagg ggaaactcaa ggaggcgggt cctgaagaag agtcatctac gaccacgttt 300
 tacaccgcca tgtgatcgtc aacaccgacc aaaaaggga aagaaactgg ctaggtagcc 360
 tgcacgcgtc gcccttg 377

<210> 9171
 <211> 241
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-060-Q1-E1-H12
 <400> 9171

cgctctttac gattgatgtg aaagatggag gtactgatac tacagtcacg cgagttgggt 60
 gattatgaat tcaaagacag cttgtgttga agttagtac tcccgtagca agcacgtatg 120
 gttaaagggtg tgtaacacct ttgagacatg aagtgtactt ggcttgtgca tccatattag 180
 taagagtcgg agactagtga tggcccttct ctaccactct atccccccag aagcaagcct 240

<210> 9172
 <211> 390
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB104-060-Q1-E1-H2

 <400> 9172

acttgaggga tcatgaaata tgttcctatg atgagcatgt ccaaaacttg gaggaactgt 60
 ccaccattga tattactgac gaaaggctgc gtgatgatgt ggcaacattg ctgttttaggt 120
 cgaagaagct aaggatgctt ggtgtgagag ctaatagagg tggcaataca catggtgtta 180
 tacctttcct taatgagctc cgaaaatata acctcgagtc actcatcatt gaaagtgacc 240
 tgtgcggtct ggatgaatgg gagccatggc ctgagctccg aagatttgaa ctgacaaaac 300
 tcctcccacg gggtccagag agttgggcct cactggacag cctcaccacac ttggattttg 360
 caattcgtaa aatccaagca acggatgttc 390

<210> 9173
 <211> 367
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB104-060-Q1-E1-H5

 <400> 9173

cgacgggaat gagacatctc ccaggacta gtgaagttgc ttaagaacaa gctctgcagg 60
 agataccttt ggtcttcagt ttcaaagaca gtacactttc ctgcgataac tcaggcatca 120
 ccatcaggcc ttcttgtctc ttaggtttca ggacctacca ctttgtggat catcactgtg 180
 cataagccca tgggctgggg ctgacacgag acattcatcc catggatcaa aacaggctgt 240
 gattgtctgt gtgcagaaca cataagtgtg taacgtttat aatctcaaca caacacaata 300
 tatcgacat gtgcagtcag gagtttggat gtgtccacgg aatagaaca ttcttcctcg 360
 atttcat 367

<210> 9174
 <211> 361
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-H6

<400> 9174

```
cgacggacgg aacatgatgc tggtgacgag aatggtacag agttgatatg agtttcagac   60
caaaggaagg atcaagcaat tgaacgcaca tttaaaggac ttgcaaggca cttccgcgaa  120
atgttctctg aactggtgca aggtggcaac ggagacctgg ttacgacgac gaagtaggat  180
ggtgatgctg gcgatgatga catgaatgag gacgcgcctc gtgaagcata tcctgaaggg  240
aggatagaga gatacactgg tatgaaggtc aaggttacca tcaactggcag aggagatact  300
cagtcgataa atcatttgtc tggacgacag aagacggtgg tggcattaac actgacctc   360
g                                                                    361
```

<210> 9175

<211> 381

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-060-Q1-E1-H8

<400> 9175

```
gatcttgga atgtggcagc tggagcggat ggtgttgcta acatcaatgt tactgactgc   60
catatcccc ttactggacc aaattcaatt gttggccgtg ctgttgctgt ccacggtgac  120
gctgatgatc ttggcaaggg tggacatgag cttagcaaga gcaactggaaa cgctggtgcg  180
cgtgttgctt gcggaatcat cgggctccag ggctaagatg tcactctccac cggccaacgt  240
cgtacagatc tgggaacctt ttcagaatgc agatttgcaa tctctattct aaataagcac  300
atgatctttg atcacttggt agtgtgcacc attcgtgtga attcctatgt gctactctga  360
actttaccac tgtcatttgg c                                                                    381
```

<210> 9176

<211> 359

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-A10

<400> 9176

ccgggtcgac gggccggcgt agtcacggtg tccggcatgg gcggcatcac ggcgctctcc 60
gatggcatcg cgagcctggt gaccaagggg tgcgggaaga tatctcccct gtgcatcccg 120
cacgccataa ccaacatcag ctccgccttg gtcgcatgg acgctgccga cggcttccta 180
ggcccgaact tctcgatctc caccgctgtg gccacctcca accactgctt caacagcgcc 240
gcggaccaga tccgactggg ccgagccgac gtcgatcg cgggtggcac cgaagctggc 300
atcatccga tcgccctcgg cgcgttcttc gcgtgcaggg cgctgtcgca gaggaacga 359

<210> 9177
<211> 420
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-A2

<400> 9177

ttcatggaag agaagctaaa gcattaccca gccaccgtca acgatgaagg gatgtatgcc 60
cattcaaagg aagtggccga ggccatgctc ggggaagcta atgtgaagggt ggctccccgg 120
agcatgggtg gcgaggactt cgctttctac gcgcagagag cggcgggtgc attcttcttc 180
atcggcgtag gtaacgagac cgccatggac aggggtgcac cgggtgcactc cccgcatttc 240
gtcctcgatg aggggtgttct tcctattgga gctgcgtttc acaccgcggg tgccattgag 300
tacctgaacc gtcctgaaa actacaggag catgagtga ggtccgtctt ggattatgga 360
gtgaaaattc tccgatgtcc gtatagtgtt agatatccaa aatcgtcttc atttgcttga 420

<210> 9178
<211> 397
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-A3

<400> 9178

cttgctgtac acaccttttg ggagaatccc acttgattgg aatttattag aatactctat 60
gtgcttcact tatacttttt gagctagata gtttttgctc tagtgcttca cttatatctt 120
ttagagcacg acagtggctt aattttgtag aaattgctag tctctcatga ttcacttata 180
ttattttgag agtctcttag aacaacatgg tatttgcttt gggtataaaa ttgggtcctag 240

aatggtaggt atccaagttg ggtataataa aaactatcat aggaagtgaa ttggatgcta 300
 tgatcaattt gatacttgat aattgttttg agatatggat gtagtgatat taaagtcag 360
 ctagttgggt gattatgaat ttaaagaatg cttgtgt 397

<210> 9179
 <211> 376
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-061-Q1-E1-A4
 <400> 9179

gcatggagac agcaggacgg caaggttggg gaaaggcccg cccaaggaaa acggataacc 60
 catttttggc aaaatgcttc aacaaccgtt ggaattggct acaaacggca tcaaatacag 120
 ctgcaacagg agtcatgttt tgcaacaatg caaaaacggg gtcgagtttt tgttacaact 180
 ggcgtcgcat ttgtctacaa atgttatcat tttttgtac ataagtccac cgttgagttg 240
 tgagttgcca tgatggctat aagcagtggc gacgccgaac tgtggtcgtc cggcggcgac 300
 aatgatagct ccttgaagc tccgcctccc agctgggact ggaaatccaa tggcgccgtc 360
 acaccgtca aatccc 376

<210> 9180
 <211> 392
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-061-Q1-E1-A6
 <400> 9180

tcgacgggaa atagaacaca aaaaaaata caaaaagagt aaataaaaat acattacaaa 60
 agaaaatgta caaatcaata ttcaattaac ggaaattgga aatctaataat ttccttcctt 120
 caaaataaat aattgcacca gtcattctaa ggaaaggctt tccaagaata ataggacatg 180
 aaggattgca atctatgtca ggaacactaa ggtctacggg cacataattc ctattttcag 240
 caataagatt atcattaatt cttcccatag atttcttaat agtggaatcc gcaagggtgca 300
 agtttagaga gcaatcatca aaatcacgga aacctatcaa atcacataaa gtccttgga 360
 ttgtggaaac actagcacc atttcacaca aa 392

<210> 9181
 <211> 207
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-061-Q1-E1-A9

 <400> 9181

 gtaaccttcg ggcgttgaaa gtttggttcc ttaggctggc aacgtgaaca tcaagcgttg 60
 ctgaatatgt gcctgcggct gctggtgtat gtactagcca cacatgataa ttatatggga 120
 tgttccagaa agaaaaaaaa ggaaaggaaa gcagtccgac aaggtgatat aaacaaagcg 180
 aaaatcacao taatactgca acaaaaaa 207

<210> 9182
 <211> 388
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB104-061-Q1-E1-B1

 <400> 9182

 gggtgataag taagatgatt gtgatatcaa gattaggagg gtgaatgtta gagctaattct 60
 tgatatttgt attagcatgt ttgagttttg catgtagtct agtctagtgt ggtgttcgtc 120
 cgacgaaggc tttagggtgag cgcgccaaag aggtgagatg ccaggatgcc gtgtgaggcg 180
 gcgagcacgg cgagatgccg atggtgctgc gtgagaagcg gcaagacgta tcagaggctg 240
 gagccgtgat ggactgcac aaattgggtc gggngaaccg gccggtcggt ctgtttgttg 300
 gactagctgt tcatgcgtga gttcgtttag tcctagccga gagtatcggt gctagtagtt 360
 gatgcatgca tgtanttggc ctggtcac 388

<210> 9183
 <211> 396
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB104-061-Q1-E1-B2

 <400> 9183

taaattcccc aactccaaaa acctggaacc aaacacggtg gaattggtac cgccgcaccg 60
 ccggctatta cctcgetgct cggagcaagg cttgacggcg gtattcctcc ccagcatga 120
 gatccatcct ccgtgtggcg tctgtctgcg tctcatcgaa cgccaggacc cgctgggagc 180
 gatgcttgac ctcgtaaggg agaaccgctt ctgctccata gatgaggaag aacggcgttt 240
 ctctgtttgg cttgggtcgcg gcggtgcgga tggaccacag cacggactgc agctcgtcga 300
 gccagccctt gctgtagggc tcgagcttct tcttgaaggt tcgggtcttg aggcccccta 360
 ngactttcgc attggccctc tcagcctgcc cattac 396

<210> 9184
 <211> 372
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-061-Q1-E1-B3
 <400> 9184

caataaggta acggtccctt aaaaaaacgt taaacggcaa aatacaaggg taatttcaaa 60
 aattccttcc cattgtattt gcaatggcct tttcccattg tataaaattt ggcactctcc 120
 atcgcatctc caaaggacaa ggtctgttgt aacgatcttc tctgatttta cttagcactc 180
 tccatcgcggt ttcttttgac aagtttagtt gcacgtcacc ggctctacc aaccacatat 240
 agttcttttc cctcagtcac tggagccaac acaagacatg gaagcacaag aggacttaag 300
 gtcaggtcgg ctccggtata tgggagcggc gtcaactgtg cgttggcagc ttgttctcgc 360
 aacggcaatg gt 372

<210> 9185
 <211> 393
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-061-Q1-E1-B5
 <400> 9185

cgacgggagg tatgagccat acagaacatg gaatacagta gttttaacag caatataaat 60
 aaagaatgag ttcattaagt accttatgtg gtgggttttc tttcttgac taacggagct 120
 tatgagattt cctgttgagt tttgtgttgt gaagttttca agttttgggt aaagatttga 180

tgggtctatgg aataaggagt ggcaagatcc taaacttggg gatgcccattg gcaccccagg 240
 atattcaaga atagccaaaa gcctaacatt ggggatgccc cggaaggcat cccctctttc 300
 gtcttcgttt atcgagtgat ttacttggga tctacacttt tactctccac ctgatatgtg 360
 ttttaacctg gaacgtcctg tacgatatca gtc 393

<210> 9186
 <211> 370
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-061-Q1-E1-B7
 <400> 9186

tcgacctcag cgaccgaggt gcagcgcattg atggcggaga tcgacaccga cggtgacggc 60
 ttcatcgact tcagcgagtt catctccttc tgcaacgccg accccgggct catgaaggag 120
 gtcgccaagg tcttctgaat cagttcattt cacctcacc gtccgatcca ggagccgatc 180
 catcgacgta tggcttcgta tatcaatttc atgcaactac ctactctggt cccgatccag 240
 cctcagcttc acctgaggcc ggcctaatt ttgtttgatc actttttgtg ctaccagtag 300
 taactagtga tgatcactgt tccatcattt atttatttta catcatcaca agtatcgitt 360
 ctttctcaaa 370

<210> 9187
 <211> 397
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-061-Q1-E1-B8
 <400> 9187

cgacgccggc atacgggagc ttggggccac cggctggctg catgaccgca tacgtgtcgt 60
 cgtctcaagc ttcttcgtca aggttctcca gctgccatgg cgctggggga tgaagtactt 120
 ctgggacacc ttgctggacg ccgaccttga gagcgacgcg ttgggctggc agtacatctc 180
 cgggtctctg cctgatggcc gtgagctcga ccgcattgac aaccgcagc ttgaaggcta 240
 caagttcgac ccatacgggg agtacgtccg gcgatggctg ccggagctgg cgaggctacc 300
 aacggaatgg atacaccacc cctgggatgc acccgagtct gtgctgcagg ctgcaggaat 360

tgagctaggt tccaattacc ctctcccat tggtgag

397

<210> 9188

<211> 316

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-B9

<400> 9188

ttccaaagcc atcacgcagg aggtcggcat tgaacttaca caagttcagg ttctcaacac 60
cttccagttc cgccggcacg gcataaaatt caggacaagg agttgccgcy tcataattcc 120
aagggaaaaa acagcacaat agctgtcagt gactagcttg cacatgacat cggagcacia 180
agattgaagg aaaaataatg tagtaaagat agatcattca ccaggatggg gaagcatttg 240
ttgctcgggc gaacacaatt ggtcagcgcy aaatggctga gatgaggtac atgagtagct 300
ccaacttgaa aacatc 316

<210> 9189

<211> 403

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-C1

<400> 9189

ggttctaata taaagtttta aaaacaaaaa taaataaaga ggggaactta aaactttaca 60
aaagtaaaag tgaacatgag aaggacgaac accattggag tgggggatat cctgaacttg 120
ttcatgccca tgggaacttt gtgaatcttg aattacagaa actttttaac aaaataatta 180
tacccttgta caaattcatt ttattataag tttatgtgcc aaggtttgac tttaggatga 240
ttagattgct tggttggtatg tgcggtgcaa aaacagaaac tttggctgta gtgcgtgatt 300
ttacattttt tactggaatg tcaaaagttt ctgaactttt tacacaatac tgctatgcaa 360
ttttttttat tttgccctat tttttcagaa tttttggagt tat 403

<210> 9190

<211> 163

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-C10

<400> 9190

acacagcgat cgcaagagct gtagtacgta cgtaagtgta gcttagcctc ctctgcacgc 60
catggcgatg ctgaacaaga acacgggctc cctcagcttc ttcgtggccg ccctcatggg 120
ggtcatgggt gccatccttc tctctttctc gttcgacgcc ctc 163

<210> 9191

<211> 319

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-C12

<400> 9191

gcacgagccc gtcaatagga tgcgcatctc gaggacctga tcgcagtgtg aatgggtccat 60
ggagtccac actgcgagag catcagatcc agcgaatcac acatgtcacg tacgatgcag 120
cgctcataat gatgtgagtc attggcgaca cgacgtgac atcacgagtt cactactc 180
gtgatacgac ctccaaaggc atcatccagg gtggcgtact tggcatgac agcattagac 240
actcgcgact tcagattagg gcgtgagcct atgcagataa catccattgc agcgtatagt 300
ccggtggcgt gagactgtg 319

<210> 9192

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-C4

<400> 9192

cgacgggaac taagtaaaaa atgttaatca tgtattaaaa atatattaaa catgtatata 60
aataatattc atgatgtata aaaaaatgta caatgtgtat gcaagaaata gacttaaaaa 120
tatgtattaa aaatgttaat attgtaatac aaaattttta aatgtatgta ttagaaatat 180
tcctgatata tacaaaaatg taaaatgtgt atgaaaaaaa gttcacataa caaatatttc 240
tttgaaaaaa atgttagtca tgtgttttaa aaatgttcaa cgtgtataaa aaatgtttct 300
tatttaggga aaattttaag tgggtataat aatgttccta ttctatacga aaaggacag 360

gatcaaccga tggaaaccaa taagagaaag aaataaaaat taaggaaacc taaaaaaaaa 420
caagg 425

<210> 9193
<211> 423
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-C5

<400> 9193

tcgacgggagc acagtacctg cgcaaggtgg acctgcggac gtacggggggg tacgggggagc 60
tgcgggccgc gctggacgcg ctcttcggct gcttctctc ctgctccggc ccctcgccgg 120
acaacggcca gttcgccatg gcgtacgagg acaaggacgg cgacctcatg ctcgccggcg 180
acgtcccgtg ggacatgttc atctcctcct gcaagaggct gaggataatg agaagctccg 240
aagcacgatg atgacgatga tgaaaaggac ccgatcaagc acacatacat acatgaagca 300
atctggagat gatggaaacc ggccgtggca catgatcagg agaaggacgc acgcatgggc 360
cagatgcatg atcaggccat ggggtgaacgg cgaacggagg ccgggttacc cgggcacgcg 420
cct 423

<210> 9194
<211> 210
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-C7

<400> 9194

cgacgggaat gaagctacaa atgtactgtg gtgatgcaga ttctgatgca atacacaaca 60
ggcaggcaat gagcatatgt gtgtaggctc cagttgagta acctttacac accttcccct 120
atatgagcac atcaaagata atcatataca gactcgaaag tctagtagcc gaccacgtaa 180
aattattctg taacagatct gcgtactgcg 210

<210> 9195
<211> 387
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-C8

<400> 9195

cgacgggaat cagataactca gatgctcagg agcaccaaca gatggcccaa tggaacaatt 60
taaacaatct aggtctcatt ctgcatgatg gaatttctat aaccattgga accctatcta 120
tccttgacca caattggtgt ccatcaattt cacgataccta catcgccacc gtgtcagtag 180
gagcatgcaa tctcttttct cacgtgacac agggttcagt agccaccgag tggcgaccat 240
cgatacactt cgagaccata tattttgccg acatcacatg tgtacctttg aggaaaatca 300
ttttgtgata gtctaatatg agaataaatc cctgggtcat ccaaagacag agaccctttt 360
gtacagcaac tgtcacgaat tctggcc 387

<210> 9196

<211> 211

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-D10

<400> 9196

gcggtggaat gaatcctttg cagacgactt agatacgcca cggggcattg tcagtggcag 60
agtggccttg ctgcgacgat cactgagca ttcagcccca gcgtctcaca ggattcagtc 120
taaggaaacg agaggccgag cattgtacta cactttgtga gccacttctg aaaagtgtac 180
attgaactgt cacgcatgat actgtgggcc t 211

<210> 9197

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-D11

<400> 9197

taatgggtga cactaacgat actgaagatt agtttcaacg tggatccctt cgggaaggag 60
aattacaaac ttaaaaatta atctcattag gtgtttttga gagaaatgaa ctgcgtgatg 120
acaacagcat gcttcgcaat gaaatcctgg agcttcagaa caagcttaga atgcgtctgc 180
agagcaaccc tatttggagc caggatacta ctacaagatc agccgttgca gtaccttatc 240

ccacaagcgg agtgttccca gtacatcatt cgccacattc accagtcac acctcgacag 300
 cactttctct gcatcccgta atcactgagc aatgctatgc tgccccacca cgagagctgc 360
 agctcttccc gggaagcttc atcttcatcc ac 392

<210> 9198
 <211> 375
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-D12

<400> 9198

gtaccagggg caccacaaag caaccgtctg ctgcgccctc catgacgggg ctgaatcggc 60
 accctcataa gcaacaccgc cgcgacggcg catgggtctg tacatatctc tgtcgattcg 120
 aacaacgcag cagggtgctc tgctagattt tcagcgccgt ggcggtcga ggacaggcgg 180
 ttttaagatt tgatttgctg tagtgctagg accatgtgta acaatgtact tatatgcagt 240
 gcagcctttg ggggctgcgc acaggtgatt tgtatggttg cttacattgt tggatattta 300
 tttgtgcaca accgaaataa tatgcacca ccgccattgg ttccgcttgg taaatgccag 360
 ccagaaattt gttcg 375

<210> 9199
 <211> 329
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-D2

<400> 9199

gggggcgaag cagagatgcg tgcggccggt tctgcaacga tgccaccaac attgcatccg 60
 tcgatgcttg atcatgtatg agcatgcgt gaggtcccga tcgtcttccc agtggcttac 120
 cttcttcgtc gttgctgctg cctcagccgt tatctagttc ttgctttagc tatgatgtgc 180
 taggctttgc ttccaactac tgtatgctgt gtctgaagtg ttgtgtgggt gctctgcttt 240
 tactttcaga tcttgacaga tccttttgag gtgctgggct ggggttcgtc gtaatccccg 300
 gtcattgtag atagtatgtc gtgtgcggg 329

<210> 9200

<211> 322
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-061-Q1-E1-D3

 <400> 9200

 gggcacacag agaagaagga caagaagaag aagaaggaca agaagcacgg cgaggggccac 60
 aaggacgacg acggccacgg cagcagcagc agcgacagcg acagcgactg agccagctcc 120
 ggccgcgtgc agtgcagggg agatgaacgc gtgggttaat ttggagcgtg tggtagcata 180
 tgtatgtaat gcttgacatg tctcatggat cttgtaatgt aataaccggc tgactgcat 240
 ggtgcttgta ataataacgt taaggaatct ccattggtaa ttggtacca tccttttttc 300
 caagcttttt gtgtatgtat gt 322

<210> 9201
 <211> 346
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-061-Q1-E1-D4

 <400> 9201

 aagggttca agttccttgc cccctcctt ctctggtcc tcctccaaaa caacggcccc 60
 aattgaacaa cctaaggcct tcaattgcg cacccttgc cgtaccggt gcagcaagtc 120
 gagccggccg aatttgtgca acagggcgtg caacacgtgc tgccggcgat gcgactgcgt 180
 gccgcccggc accgcccggc acgaggacgt ctgcccctgc tacgcccaca tgaccacgca 240
 cgacggccgc cacaagtgcc catgattcaa ccgccttctc gacggccggt cgaggcta 300
 gcataactaga tcatggcgtc tcagtaaata tcccatcaag ctagct 346

<210> 9202
 <211> 391
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-061-Q1-E1-D5

 <400> 9202

 tcgaccggaa agtatgtccc tagtcccggc tgaagaatgt atttagtcat ttagtgtcga 60

tgcaaggcag taaccatttc ttgtcttcat cctcgtattg tatagcatat agaggtacaa 120
 gggagagaga gagagagaga gagagagagt tacactgtaa caacatacat ttgggaccc 180
 atctatcagg gcgcgggcac gtagtcatac tgcattggata gggacgtgcg ttttagcatcc 240
 aggagaagtt gttttcagca taaaaatatt cagtctaaca ccgatgacca cgacaacaat 300
 gtctttctct tcttccccta cttctcttgg gcgtcatcat cggcggctgg cgagcacggc 360
 tgagtcatat atggtcacgg gctcacggcc t 391

<210> 9203
 <211> 394
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-D7

<400> 9203
 cgacgccatg gaactaacc gccctttctt gcgcctggca tgtggcggcg aggaactggg 60
 gacaccatac cgggacacat ccggcgagtg gtgtcggcac gaggacgatg attccgaaga 120
 tcttgagccc tggcagttgg acggtgagcc ggtatccgac gcggaaacca ccaatgagga 180
 gtaatgcagc aacttggccc tatgctgccg tgtgccatgt ttgcttgccc cagaatgatc 240
 gaaacagctc tcatcagtcg tgtgttggtc tcttggtgta ttaccggata agctatattt 300
 tcttgccgtt atctttcttc atgtgcccgt tccgtgtgca tatggcatcc tgtttgttgt 360
 tacattgtgc tatatatgct gtagtattca gatt 394

<210> 9204
 <211> 352
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-D8

<400> 9204
 cgacggggga ggggtactac atcaggtccg ggatcgtggt gatccagaag aacgcgacca 60
 tcaaggacgg caccgtcgtg tatagcaccg ccgggtcggc gtgacgggtt ctgcgacaac 120
 ctctgcgctg cgttgatcgt cgtcgtcgtc tcgaggcccg ggagggactg aagaagtgac 180
 ccggggacgg gaggcgtttg aagcttgaat gactgagaag gcgcgcgcgg gcagcattag 240

tagtaagtag tagtaaggag cagtggaaca aagtaatagt cgttcgtttt tcccctgtaa 300
 taaataagag gctgtgtgtt gaggtaaaga agtggcagcg agcaaacaaa ct 352

<210> 9205
 <211> 328
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-D9

<400> 9205

gactaataga ttagtgatga gagcacgtgc gtttctgaaa tttttgtaaa tctcgttttt 60
 ctctagtcct tccttgtcaa actgtcaccg tgtcagcatc agcattagtc ctactagtag 120
 taagataatc ctccttacag tttccaattt gtgggtccaa ttgtaaaatg ccgttctcct 180
 gttctgttca ccaattttta gcacagaacg tcataatgat actctcatac tgttgctttg 240
 ggacaagtat aacatcttct gaaatgtcaa tcttgttcga ttcacagcca ttatatgatg 300
 aatataattt cagatatcac catggcat 328

<210> 9206
 <211> 368
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E1

<400> 9206

gggatcaaaa agaagattaa catgtcaaca ttctgcaagg tgttcggtaa ctcagacttc 60
 ctcacagat caatctcgat tgccgagttc caagggcgcc cgcttgctga tcagcctgct 120
 gtcaataatg gccgtcctcc tgggtgctgc aatgtcccc gtgaccttca ccaaggctca 180
 atggtcgccg atgctatcag tgtcatctca tgctgggatg aagacaacac agagtggggt 240
 cagcgtatcc gatggattta tggctcagtc acagacgatg ttgtcacacg gtaccggatg 300
 cagaaccgtg ggtggaagtc agtctactgt gtcaccaatc gtgacacctt cactgtact 360
 gcaacct 368

<210> 9207
 <211> 274
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E10

<400> 9207

```
gtcacttaag acttttgagc ttgatagttt ttgctctagt gcttcactta tatcttttag   60
agcacggagg tgtcttaatt ttgaagaaat tgctagtctc tcatgcttca cttatatcat  120
tttgagagtc ttttattaca tcatgggtatt tgctatgggt acaaaattgg tcctacaatg  180
atgagcatcc atgttgggta ttgtaaaaac taccacagga tgtgaattgg atccccagat  240
cgatttgatg cttgacgatt gttttgaggt atgg                                     274
```

<210> 9208

<211> 391

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-061-Q1-E1-E11

<400> 9208

```
gacctctagt acaccgatgg ttatctcggc aaagatcaga aggttgtcgt cgcccagttg   60
tgcggtgcacc atcatgtcct catcttcac tactgcatgg ccacaaagcc ttgtgaccgt  120
ttcgccaggt ttgtcagcaa caccgactac acgttctcta cgggtggaaac ctgcaacgat  180
gtaaaggcgc tcaaggttac aggcttggcc tgcaaaaacc ttgtcgaaat ccgtgagcac  240
tatagggctc ggggcagctt gaagaaggac tactgggttg aactcgctc ggccatcatc  300
gacncctact atgacaagat gaagcaggat gccaaagaaa caaatcctgt atcctggcac  360
ggggcctaaa cgcggaact agatgaaact c                                     391
```

<210> 9209

<211> 220

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E12

<400> 9209

```
agaatcaaag aattctagct cattggatca tagacttcta gcttattgga gctagttata   60
cgtcgatagc ttgttatttt tttattctat atttgtgtta cctgatgcga actatttctg  120
```

attgtaaacc tgatgtgaac catgtttgat cgcaatgtgc caggtttggc tcttttaaaa 180
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaca aaaagatcaa 220

<210> 9210
 <211> 385
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E3

<400> 9210

ggggggattc agtaacctcc cggctactccg gcaaaatccc aatttcaccc ggaaaacttc 60
 caatatccaa acataggctt caaatatata aaccttaatg tctcaaccat tttgagactc 120
 ctcgatcatgt ccgatgatcac atccgggact ccgagcaaac ttcggtacat cacaatgcat 180
 agactcacia tataactgtc atcgtaacct taagcgtgcg gaccctacgg gttcgagaac 240
 aatgtacaca tgaccgagac acgtctccgg tcaataacca ttagcgtgac ctgaatgccc 300
 atattgtctc ctacatattc tacgaagatc tttatcggtc agaccgcata acaacatacg 360
 ttgttccctt tgtcatccgt atgtt 385

<210> 9211
 <211> 423
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E4

<400> 9211

gggaactact gtacttcata agaatacaac cctttgcacc acattgatta tttgccaaaa 60
 attgaaccaa atcgagaggaa cttctctagt ccttggaag caaacagttc acaatctctg 120
 cttgatgaca ttcgggacca gcatggttgc ttttcttctg ttcaagctca gagaaactct 180
 actccatgcc tttttgcaga tggaacaat ttccaacaag cagaaagtgt caacagcaat 240
 atcaagcaca tgtgcagtat aagtcctcgt tagaatgtca ttctattctg ttgggtggcgt 300
 gttggatcga ccataagtag caaggacatg cgcttcttac cacactttaa tatcctgcc 360
 gtaactgtga taatgtctta cgctggcacc aagtacccaa ctgaaaatac ctggccattg 420
 tgc 423

<210> 9212
 <211> 379
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E7

<400> 9212

tgcacgggag gtcaccccca ttgcggcgaa gaagtgtgca atctccgact gggaacccct 60
 ctccccaag gttgcgaata gggctctgcc gtggaggggc cgctttatgt cttcaggggc 120
 aagactaat ctaaccaact ccagcctctc ttctctgcc atgtttacca tgggcctgtt 180
 cttgctggcg gacgggggtac actctaagtt tgacacacca tgggtcccggt tcttttggga 240
 aggagcggga ccaaacgga aataccatat ggttaaattg caggccgtgt gtcttcctaa 300
 agcccggggg gtcttgggat catcaactcc aagttgatga acatcgact aatgtgcaag 360
 tggatctgga aaatgactc 379

<210> 9213
 <211> 224
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E8

<400> 9213

tgcacggaga gcaggtacaa gatgggggtca agcctcaggc cgggaactcc tccatggcca 60
 tcatctgcca gtcccacgtc tccgccttgc tctgcacgt catcgctcg cgctggcccaa 120
 tccagttcgg cttcacgggc ggcttctcct ccccgacgca ggacgccatc acccgcgacc 180
 tcggcctctc catctccgag ttctccgtgt tcggctcgct ctcc 224

<210> 9214
 <211> 362
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-E9

<400> 9214

tgatgagatc gaaagtatgt taggaaggag agaaaatcct ggggagcatg aagccatgcg 60

caagatgaaa aatgaattta tggtaaattg ggacgggttg cgaacgaaag ataaagaacg 120
 tgtactgggt cttggtgccca caaatagacc ttttgacctg gacgaggctg tgattaggag 180
 gttcccccg caggctaattg taaatttacc tgacgcatca aatatagaga aaattttgaa 240
 agtaatttta gcacaagaag agttgggaca agatactgat ctggagtcac ttgctaatat 300
 gactgatgga tattcaggaa atgacctgaa gaatctatgt gtaactgcag ccactaccc 360
 ca 362

<210> 9215
 <211> 218
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F11

<400> 9215

ggggctaata gaaggggaga aggctccaga aaaacggtaa caaccgggt tacctttgga 60
 acatgccac aaccttaaaa accccaaaag aaggaagggt tccagcaca acaaccactg 120
 aaccgcgca ttgcacaca agcccttgca cagacacacc attgtcttgg tcaccatgtc 180
 caatggcatg tattggtgga cattggttgt aaattgtt 218

<210> 9216
 <211> 379
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F12

<400> 9216

gggagggagc tgcaagcaag gagtgaaggt ttcaacttgg aaaggaaggt ggaaacaggg 60
 gaaatgtggc ttttggttaag ggggaggggg cggaaggta gatacttccg cggaagccga 120
 aaatttgaa ttgcttcagc gaaaaactgg cgacaaaagt gtcacagac acggtccctt 180
 atttagaact gtgtatgata tgtgaacatc acaaacgatt cagatagctt aaccgtgtg 240
 cgatgagttt gaacgtcaaa aattttgttc caatttcctt gggtacagtg ctcatccaca 300
 tcattgcata atttgggtac acaaaggaga ctacagcaca cccgcacttc ttaatcgagc 360
 aagttcagca attaaacag 379

<210> 9217
 <211> 381
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F4

<400> 9217

gggatacaat gaaatgcgac gcaagctaca caaaaatgac aaataccgat tttgaaacat 60
 tgatcgggtgt gtaaggctca ctacaaataa aatcaatgat tttaaaacct ttgtgtacct 120
 tgcattgtcaa tgtattttct catgaaattt tgcacacatg tagtatacat ctatcgtttag 180
 tgggtaattt tttccagaat ttttgagat tgtgaaatgc gaagtttcaa tttttcaaaa 240
 caaccaagct caagcaccaa acgtgttttc tgaggtagca gtccaaaact agaaattcat 300
 aaaaaagaga atacaagtgg aatagggcca gttaaaaaac taaaaagttg gacttgtcta 360
 aaagtacctc tagaaagcct t 381

<210> 9218
 <211> 389
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F6

<400> 9218

cgacgggaag cttcgtgac tgagctgacg gacgcgtgc ggacgctggg gtcgacctcc 60
 gcggacgagg tgcagcgcat gatggcggag atcgacaccg acggtgacgg cctcatcgac 120
 ttcagcgagt tcatctcctt ctgcaacgcc aaccccgggc tcatgaagga cgtcgccaag 180
 gtcttctgaa tcagttcatt tcacctcagc cgtccgatcc aggagccgat ccatctacgt 240
 acggcttcgt aaatcaattt catgcaacta cctactccgg tcccgatcca gcctcagctt 300
 cacctgaggc cggccctaatt tttgtttgat catttttttg ctaccagtac taactagtga 360
 tgatcactgt tccatcattt agttatttt 389

<210> 9219
 <211> 380
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F7

<400> 9219

tcgacgggct tcattgagca atttgacaca aagaaaaaaaa tgtcacggag attgttgctc 60
ggacaacttc tcgggcgagg aatgcaacac aaagagccaa atcgggtgggg tgtttggcgc 120
tcttcgtgctc actgatgacc tgttgggtgag gggggcgat tttaggaagc agcagcttga 180
caacaaaaca acatcaccta actctaactg aagaggacag ccggtgtgat ttgctcttac 240
attgatatcg catgcgtatg aataatggc caatggaatt gggagcggag taagaagctc 300
atgttgccct tatgcatgta acaatcatgc ctgcctgcac ggcccgtac ctgttggtcc 360
aatgcctggc tgctgcctg 380

<210> 9220

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F8

<400> 9220

cgacgggttc cactaataat tatggaaatt cctacaataa ttcttatggt aattttaata 60
agatgccctc tgattttgag aatagtgtga aagaatttat gattttctcaa acgaatttta 120
atgctttgct tgaagaaaaa ttgctcaaag ttgatgattt ggctaggaac gttgatagac 180
tttcgcttga tgttgattct cttaaactta gatcttctcc tcctaagcat gcaatgagtc 240
tctcaaagta atgagaattt cctttgacga gtgcaaggaa agaaccgcta gattgcgtgc 300
taaaaaagat agctttataa aagcgtgttc tagtttccac gaaaataatg atgaagatct 360
taaagttatt gatgcgtctc ctattaga 388

<210> 9221

<211> 187

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-F9

<400> 9221

cgagcgatgg tctgttccaa tcaatctagc cctctaggag tatgcgttta acgccttggt 60

ttttgataaa ttctaaattt ttgcacgagg tgcattgagtt ttgactaat gttgactcca 120
 tggataagac gcactctcac ctttcgacca ttgctagcct ctctaagacc gtgcacttta 180
 tgccggt 187

<210> 9222
 <211> 436
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-061-Q1-E1-G1
 <400> 9222

tcccggctgg acggggggcgg acggcaacgg cggcggcgcc cacatcaacc tcaaggtcaa 60
 gggccaggat ggcaatgagg tggtctttcg catcaagaga tctaccagc tgaagaagct 120
 gatgaatgcc tactgcgacc gccagtctgt ggatatgaaa gctattgcat tcctgtttga 180
 cggtcgcagg ctccgtgccg agcagacccc tgatgagctt gagatggaag atggcgacga 240
 gatcgatgcc atgctccatc agaccggagg ccgcctccct ccacgcgcct agaagaagcc 300
 gttgagagtc ctgcttggtt tcgggtctaca agactctgat ccatcattag agagcacatg 360
 aacgaatgaa agtctaaaaa gaacttgtga ggctctggcc ccatgccata gctgaaggac 420
 attaggaag gttttg 436

<210> 9223
 <211> 350
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-061-Q1-E1-G10
 <400> 9223

cagcaggaac ccgtttcaag gattcatttc agattaagac cctgcgtaaa ctttttttac 60
 tatctcttgt tgacaacatc ccccggtttt ctctataacc gaggaggagg ctggcgtctt 120
 ggcattgtggc cacgctagaa tttttgcgcg tacctggaca ccaggggctt ttttaccag 180
 ggctctatct cggcccgctc tcatagagac cgaatacctt acggagtgtt cggcgtcgcc 240
 agtttggtc tatatgcac agctccgaat catgtctttg gtcaaagtgt gggtttgccc 300
 ggctcctgtg tgttgctgcc ttacattccg tcatatcagc taatgcggca 350

<210> 9224
<211> 401
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-061-Q1-E1-G11

<400> 9224

ggaacgaaga gatcatggct aggggaactt ttgccaacat tcgtattgtg aacaagttct 60
tgaagggaga ggttggcccc caaaccatcc atgtaccatc aggggagaag cttgctgttt 120
ttgatgctgc tatgaaatac aagaacgaag ggcatgacac tatcatcctg gctggtgctg 180
agtatggcag tggaagctca agggattggg ctgcgaaggg tccaatgctt caggagtgga 240
aggctgtgat agccaagagt tttgagagga ttcaccgtag caatctcgct ggaatgggca 300
tcgtcncctc atgcttcaag gctggggagg atgccgacac tcttggctta acaggccatg 360
agcgctacac catccagctt ccgactgatg tgaatgaaat c 401

<210> 9225
<211> 364
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-061-Q1-E1-G2

<400> 9225

ggaataaata tagtgtctga taccaaaata attcacaagg aaggtggccc ttaaaattcc 60
aaacaaacca aaccttgagg aaaagcttaa ggaaaagggg tgtacaggag agtcaggttt 120
cgatcctgtg gaactgtggg ttacgggccc accatgtggg ttaaaagtan gaagggcgga 180
gacgtcttgc gtgatcatgc aagcaaggta tgtcagagga tagcctatca gttatgtcgg 240
caacaacatc agtaccaagg gcgagggatg aagagaacca ttttcctgct cggtgaacga 300
ggcggaccag taggcaaagt tctcatccat cggtggttac cgaaatgtca tcaacaagaa 360
taac 364

<210> 9226
<211> 379

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-061-Q1-E1-G3

 <400> 9226

 gctccaatag agcaagatcc tgcattggaag tctccacatg cttagacagt ggattacatt 60
 gagcgaagac taatgatcaa catttaactt gataatgcat atgtccaggt gaacctcctt 120
 ggagtccccg tgcaccgcat cggcgggtaa aggatgccat gggttttcca agtccacatt 180
 ggcgggatag tcccagctcc ccggagtcca agtccgttca atgaggccgg tgcgcccgc 240
 cacgcgaccc ggaggggtag taacaccgac cacgcacccg tacataggcc tcgtgtcagt 300
 gtcagtgtca gtggcgctgc ccctgacgca cattacagag acgggggtggc ggcctgcgcg 360
 agcctcgccg gtgcccacg 379

<210> 9227
 <211> 366
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-061-Q1-E1-G6

 <400> 9227

 cgacaaagtc tagattgaag taagatatag agcaacgggc acacgaaatt aaatttttgt 60
 attgcatcat atgcgagact ttctaagatc tgactgctgt tgcaccatat gaacatgacc 120
 aactagaaaag aggagggttag gaatgacctt ataagtgggg tggtttcgtc ttgcacgtgg 180
 gataacacaa tgggaccagg gacctagagg aagaccagcc tgccgcatgg cggagagaga 240
 tctacatcag catcgcgact cgtgatcggg gccctcgggg gaataggatc atcgcggaagc 300
 agcggactcg cgatgggaag aaggaaaaca gtgatttctc cgtgcgtcta ggtcgatgcc 360
 tcctta 366

<210> 9228
 <211> 433
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-061-Q1-E1-G8

 <400> 9228

cgacgggtag catccacgta tggatgaacca ttatgtgatg aagtcggagc atgattttatt 60
tattgatggc cttccttatg agtggcggtc ggggacgagc gatgggtctt tgctaccatt 120
ccatccccct aggagcatgc gcgtagtact ttgtttcgat aactaataaa tttttgcaat 180
aagtatgtga gttcttttatg aataatgctg agcccatgga ttatacgcac cctcaccctt 240
ccacattttc tagcctctct agtaccacgc aactttcgcc ggtaccataa acccaccata 300
taccctcttc aaaacagcca ccatacctac ctattatggc atttccatag ccattccaag 360
atatatttcc atgcaacttt ccaccgttcc gttgttaata acacacttca ccattgtcat 420
atttccatgc atg 433

<210> 9229
<211> 387
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB104-061-Q1-E1-H10
<400> 9229

aagaagtacg tgaaacacaa agaaagagtg aagaaactat acagctgaag gagcagtgtc 60
gaggggcggt aagattggag cttgaaatta ttggaaggag atacactgat atggcttcaa 120
tattgctgac attgggcatt cctggtgaag ggggcgaggt taaagctgct tataagcaag 180
ccctcctgaa gttccatccg gacagagtat cgagaaacga tatttatgag caggtcaaag 240
caggggagac gttcaagttc atctcgcgct ttaaggagaa gctcaagata tagcttcnct 300
gctaccagtt atataggaag gtttaacttt ttgataggct gaaatcttgt cagcaggtca 360
agctgtgaaa ttgattgacg ctgaacg 387

<210> 9230
<211> 399
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-061-Q1-E1-H11
<400> 9230

aagtgataga gattgatatg atgagaatag acccgggggc cataggcttc actagtggct 60

tctctcaata gcataagtat tctacggtgg gtgaacaaat tactgttgag caattgatat 120
aattgatcat atttatgaga atatctaggc atgatcatgt atatatgcat cacgtccgtg 180
acaagtagac tgaaacgatt ctgcatctac tactattact ccactcatcg accgctatcc 240
agcatacatc tacagtatca acttacacac agagtaacgc ctttaagcaag atcacatgat 300
ctacaaatga taattcatgc aatatgaaat aagacccatc ttgtttatcct cgatggcaac 360
gatacgatac gtgccttgct gcaccttctg tcactgggt 399

<210> 9231
<211> 338
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-H12

<400> 9231

gaagggaatc agaaaggaag gagcaggagc aggagcagga gaccagcag caaggccaag 60
ggctcaccgg cagacccccg ctgcgaacg gcaggtctgg aatgttgcca atgtcgagcc 120
ctccagcaaa tccgggacag cttaccattt tttatggtgg gtcagtatgt gtgtatgact 180
cagtgccacc agagaaggct caagcaatca tgctcattgc agcagcagct gctgcggcct 240
caaaaagcaa tggcaccgct gctgttaagc ctccagcgat gtctgcgaac aatgcgatcc 300
aagccatgct tacgcggtcg ctctactcc agaacact 338

<210> 9232
<211> 389
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-H3

<400> 9232

ggctcgacgg gattaaatcc atcactttat atgaaggagt cgccatcttc taattatctg 60
cgtcataacc cggctgatac ttggtgagct tggctctctc ggcaatgatt gtagcatgag 120
ggcgaatctc cttgacacaa gcagcaaagt cttgttgatc aaaaagagtt ccatcttcct 180
tgagactggg ataccactg gctatgtccg ccggatctaa ctctggtacc taggctttgg 240
cacggctcaa agctgtcaca gttccggctc tagcacagga tcgcttgatt tcttgggaacc 300

tagtgggcaa gatggacaac ttcttcaaga catcacttaa taagtttggt tcttgatttg 360
 cgggggagat agtggcaaga gtccgctga 389

<210> 9233
 <211> 373
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-H4

<400> 9233

cgacgggaga ataagtgcac gtaaaaccta taggataacc aagggtgata gttaatttga 60
 tccggctgaa aaccagaaac ttgcccgcga caaaattatt tcggttaaat cacagaaacg 120
 tgcttttctg ttgattattt tttaggctga tcaatacaca aattgtccag gacttcctaa 180
 tttggttaga tttttagtgt tccagaagtt tgcgttagtt acagattgct acagactggt 240
 ctgtttttga cagattccgt ttttcgtgtg ttgtttgctt attttaatgc atctatggct 300
 agtattaagt ggtatgaacc atagagaact tgaatacag taggtttaac accaaaataa 360
 ataaatagtg agt 373

<210> 9234
 <211> 360
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-061-Q1-E1-H6

<400> 9234

cgacgggtct gatttggttg tgtttttctg tttaattagt gcttgtgcca agtataaccg 60
 ttgggaagac ttggggaaaa tctttttaat ctgcccgat caaaacagaa acttttagcgc 120
 tcacgataac tgcagccatt tttatttcga aagtataca tagttaatta ttcttgcata 180
 taattagtaa atacattcct cacatccagc aatttatattt agaattgttg gggttccata 240
 tcttgcgcta gcaacagatt actacaaact gttctatttt tgacagattc ggtatttcgt 300
 gtgttgtctg cctaatttga tgaatctatg tctagtacaa tacttttagaa accatacata 360

<210> 9235
 <211> 367
 <212> DNA

cgccgacgag atgaaggctg cgatgagcac catggatggc atcataaaca cgggtgtctgc 120
aaacatcccc atggcccctc tcttcgggct actcaagccc aacggcaaga tggcatggt 180
cggcctccca gagaagccta tcgaggctcc tccctttgct ctggttgcca agaacaagac 240
cctggccggg agcttcatca gccgcatgag ggacacccag gagatgctgg acctcgcggc 300
gatacatggt gtgacggcag acatcgaggt gatcggcgcc gagtacgtga acacggcca 359

<210> 9238
<211> 272
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-A2

<400> 9238

gcggttaatt cagtatgatg attgtgatat caagattaag aaggtgaatg ttaaaaccaa 60
tcctgaaaat tgtaataaca agtttgaatt ttgcatgtaa tccaatccaa tgtggtgttc 120
ctccgaagaa agctttaagt taacccccca aaaaagttag aatccaagaa tgcgttttaa 180
gccgccagca cggcgagatt gccatggtgc tgcgtgaaaa gccgcaagac gtatcaaaag 240
ctggaaccct gatggactgc atcaaattgg gt 272

<210> 9239
<211> 397
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB104-062-Q1-E1-A3

<400> 9239

aacgaaaaag cttctcctcg tgtggccgag cagtgagcgg gggagtgggtg agaggcgagg 60
attttgctag ctagttgggtg tgtgctcggg gcaaatcaac ccagctgctc atgtgtacat 120
aaagggcaaa ccagtagaa gaagagccgg tgagggcggg ttgagctgag aacggagggg 180
gcttaaaggg taaactcatc aataaaatta aaatcaaggg taaactaant cgccccgcc 240
cgtttgaact aatgcaatcc ccggttgccc tctggctccc ttgctcaatg ccgtgtactg 300
caatccctgt taatttcac tttgtttatc ctgtttgtta tccgaatcaa ctgataccgt 360
gcatgaattg aaacaataat atatactcca ttagacc 397

<210> 9240
<211> 300
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-A4

<400> 9240

gtcgtctatc atttatcttc aaatgagatt gaagctatat agatatccgt gagatataac 60
tagaacttcc atgaatgtgt gtatttctat acacgcacaa tcaactttat cccataatta 120
aggcttggcc acacctgtgc aacgtatcca tatgtattgt gatgatacta cttaattatc 180
tcagtgcaac tcaggtactt cgcataataa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240
aacaaaaaaaa aaaaaaaaaa caaaccaaaa aaatcaaaaa aaaaccaaac aatacaaaaa 300

<210> 9241
<211> 414
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-A9

<400> 9241

cggtcgacgg gtgaggaacg ctgatgtgtg tatatgtgtt ctgctaaatt aaatagggcc 60
caaatgtag tggcaccaaa gctttggtga actgattaat tgaattgtat ggctgtagtg 120
aattaaacgt atgagttagt acataataat gtttgtgtga aatggagggg atgctgttgg 180
tcgaggtgat ctaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaattaaaaa 300
aaaaaaaaaa aaaaaaaaaa aaaagggggc ccccaaagg ttccaacttt aatttcccct 360
taaagcaaat ttaaaccccc tcaaagggc ccccaaatt caattccagg gcc 414

<210> 9242
<211> 278
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-B12

<400> 9242

acgggggtatg caagacaatg tccatatacg ttattctaca cgatcactct acagatccat 60
ctcctcttgg ttaactgcgc tatcaaccat gtctgtataa tgtactgtgt tgctgacggt 120
ggaagttgat tcacaacact gtgaccagta ggcagggctg cccacctccc ccatcgtgtc 180
tcgacctctt gtgtgctgtc gaccacatca gtacatcgcc tccgctcatc cctcgacgtc 240
ccaccctact ccctctctct ccagtccttt gtctgctg 278

<210> 9243
<211> 367
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-B5

<400> 9243

cgggtcgact tctactccaa cggctgcggt ggctgccgcg ctctccaacc caagattgcg 60
cagttcgcta accggaatcg ggacttgctg tccctgcaag tcaactacga gaagcacaag 120
tccatgtgct acagcctcca tgtccatgtc ctccctttct tcaggttcta caggggagct 180
cagggcaggg tcagcagctt cagctgcacc aatgcaacca tcaagaagtt caaggacgcc 240
ctcgcaaagc actcgccgga aaggtgcagc ctcgggcccg cacgggggct cgaggaggcg 300
gagctcttgg ctctggctgc aaacagggac ctggaattca cctacaacga gaagccgacg 360
ctggtgc 367

<210> 9244
<211> 321
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-C1

<400> 9244

cctgaccttg attgccgcta ccgttaacgc tgcacacatt gttgatttca cgtgtttttc 60
tactatTTTT ttatgttcgt ctcatcttgt ttaccgggtga gatgtgtaca ttaccgggtc 120
ttgggaaggg gaggtgaatt gaaatttggt tcttaaaatg tatgtcttca aaatattcct 180
gatatatata aaaatgtaca catgtgtctg aaaaaaagtt cacatgtcaa atatttcttt 240
gatgaaaatg ttagtcatgt gtttaagcca tgttcaacgt gtttaacca tgtttcctac 300

ttagggaaaa ttttaagtgg g

321

<210> 9245
<211> 443
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-C11

<400> 9245

cccgggccga cggggatgtc aatggatggt atctggctga ttatttatat cctcacctat 60
ataaatatat gcagtgcaat attcttcagc ggtagatagg gtccctgctg tcatgtgcat 120
tctacttgac actgggtttt tttcatttct gcacgggcag acctaaccct gtttactga 180
atgttgcaag taatacagac caaagtttac aaccaatggc agaagaatgc gttttgacac 240
ttgagaaggc acataaatct taaacacaaa tacatctcct ggaggcatat gtggcttgct 300
tcggaacaaa caatgtaggt gtttcacagg gttgggtcgc tgcaaaaatt acttaggtgt 360
gcatgacaga cttaatatat atcttaaacc aaaaaagggt aaaactgttc caaagctaaa 420
tggcgttggt gttcacaaaa tga 443

<210> 9246
<211> 364
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-C3

<400> 9246

ggattgtgac cttccggaca gcccaggaca gcaacggggt gcttaactcg tgggcgtcga 60
acctggagaa gctgctggac ctggtggaga agagctgcca ccaaatacac aaggagacga 120
tgatccacaa ggcggtgctg aaagcctgaa gtgaaccatt ttgaattgaa tgtggccttg 180
tttaggttgt gtgcgtagta gactttctct atggatctga attcactttc actgtatggg 240
taaaactatt ctctctgctc aggtgggcat cgctgtttg ctttggaac tcgtgtgcga 300
accggtcccg aaatactgta accacaggga atgaccaatg ctatttgccg tagttttcca 360
aaaa 364

<210> 9247
 <211> 226
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-C5

<400> 9247

cggggagact aggcattgtca aatccccgac gtgtcatgag tataactgg ccttcgtatg 60
 atattgaata cttttttacaa ggggtgcccc ccatatgtcg aagcctaatt aatcctggat 120
 acgaaatcat agctcttccc caatatgatc taaacttacg taaccgtcca ttctatgtca 180
 tagtccttcc aggaataacc ctaactcatt caccgaccgt cctttt 226

<210> 9248
 <211> 411
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-C7

<400> 9248

gacgggacag ccaaactggg acgtcatcta cagtgtactg gtcccccttg cactatttta 60
 taaagtgcc aggggacagc ctgacatgca ccacacctct tatgggcatg gtgccccatg 120
 ctcaattgcc cccacgcca ctcacctagc ttaggaaatt agctaaccat tgcatataag 180
 ggcacacatc catccatcca gggaatggat ccccatggac tctcacgcac acaccctatc 240
 atgcgagctc tcaagagagc tatctaccca tccatccatt cacacacaac acacacgcgc 300
 atgagcactc acatgctcac ggccatgagc atggccggcc actagcatgc cacatacgag 360
 gccaggtgcc agatgcctac ggcatttgac tcagatacag ctcgaggagc a 411

<210> 9249
 <211> 313
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-C8

<400> 9249

gacggggagc aggcgccaga agccgttgag gaccaggagc actcataaga aactacacta 60
 cactgaaaca gttacaagaa cctacatata tggttcgttcc ccacgtgat gttgctcttg 120

tgtattgctg ctgctgcccc tctttattct catctcacag aggcacgcag tggctgttat 180
gcatcttata gtcttggcta tcgcaatccc gaattctgta tatcattgcc cgtgccatcg 240
tctcgtgaat ggtagcagaa ttgcacaaa aaaaaacaac aaaaaacacc aacgaacaca 300
cgaccaacca cac 313

<210> 9250
<211> 139
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-D1

<400> 9250

gtcctgcaat tgaggagatt actggtgatg ccgttatggc gtctcaaact tcacgcacag 60
taaatagggc tactaacatc tctgctctag tgcttatcaa actgatgtac aaagatgttc 120
ctatacgttg tggagttga 139

<210> 9251
<211> 441
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-D11

<400> 9251

cccgggccga cgggtcatct tatcttgata cattactctg tttatcatga gcttaatact 60
ttgagatgca tgctagatat cggctcttag gggcggagcc aggatttgac gatagggggg 120
cgaagtattc aataaacata tagaagtttt ttttcctaa caatgaccat tctatgagga 180
atacaagata atatggattt tgctattaga aaatggtaga ttttcattag tttgaatgtg 240
gttcttatgc ctaaaaactca caggacaaaa tgtataatct tatatggaat tctaacaata 300
acaatctctc agtttgtgaa attctaacaa taataataac ttgcgatgat gtagacatga 360
gccgatgata taccttagat ctgaagttag tcctgttgag tagtgctaag ggcaaattct 420
gaaactaaga tgatagaatc a 441

<210> 9252
<211> 358

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB104-062-Q1-E1-D3

 <400> 9252

 gtcatatatc agggcccaat gtctggtagt agctgaatca tggatcacat gcacagaact 60
 cggttcctga ggacagctac aatgagacaa cccaccatgt actcctacat ggcctctcat 120
 cgctaccttt accaaatcgt gttcacacac ttagctcaca catagtagga catgtttaca 180
 cacctctgat tcatcctcga tgaatcagac ctgactcaac tcgaagcagt agcaggcatg 240
 acaaacaagc atgaatgagt aggcacatca tggctcaa atactcctact catgctagt 300
 agtttcatct atttactgtg acaatgacag gtcatgcaaa ggataaaggg gttcagct 358

<210> 9253
 <211> 312
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB104-062-Q1-E1-D4

<400> 9253

 gggagataga caagatgact ggctgcaacg gcaacggcaa cggcaactcg tccgcatcnc 60
 acaatgggac agcagacggt cactgagaag aagttcggag gaattgcacc aaagaagcct 120
 ctgatttcaa aggaccatga gcgcgcctac ttcgactccg cggactgggt cctcggcaag 180
 caagctgcaa gcaacaacgc acaggcggcc gcaatcgagt ccttgaagcc aaagctaaag 240
 aggacgcccc atcaccagct cccacctcgc aagccggcct gcgcgtcggg ctgacgcacc 300
 gcgacgcgac aa 312

<210> 9254
 <211> 251
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-D5

<400> 9254

 gacgggaggg gaaagtggaa cttttggcga tcgtggtggc tttgtccctg ctcggtcgcc 60

gcatttgacg tgcagtacat catcgacgag tgatgtcacc gttgatctgt acgaataatt 120
 tgtgtcaaat aaacgggggg aagtgactag tgaagtcaaa cgacctgtaa cttgttacct 180
 tattcttttg caaatgttca tgctaatacat gccataaaca cgaactgttc gcttcaacaa 240
 atatgacaaa a 251

<210> 9255
 <211> 270
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-062-Q1-E1-E1
 <400> 9255

tgggcgcac ccacactgag ttgtacaccg gcggcgagag gagtggaaatg gttgttagag 60
 atcgatccaa acgcacaaat gttgcggatg acgttttttaa gcaagctaag aggaaggag 120
 ctaagcaagg ccagctcgc cggcaatctt ctagttcaag gagccttcct gggactagca 180
 gacttctaac aggtgaaaact gtacagcctg acacaccaca gccaccagag gaaattgttc 240
 acaacatcca cttccggagt gatgggttca 270

<210> 9256
 <211> 388
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-062-Q1-E1-E10
 <400> 9256

aattcccggg ccgacgggac gctcaagaac gtgaccccg cgctgcaccc ggagatgatc 60
 ctggcggcga ccaacaacgg cgacatcgtg gacgcctaaa gcaaagcaat gaaccacgga 120
 caccaagagg cgtacgtacg ctggtgtttg gggcgcaaa atcaataaga tggttcgggtg 180
 aaacggagga tgcttaggga cgagggcttg tctttgtgat ttgtcagact cgtgtttaat 240
 tccgatgttt atcttttagtt ttcttgtgtt agcgtatttt gttcatgcca cctgcccgcc 300
 atgtgctctg ctctgctctg cctcacggca gtcctatgga tgatgaatcc ttctggaaca 360
 agaggaggga ataaaaaggt tgagtttt 388

<210> 9257

<211> 369
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-E3

<400> 9257

cggctacctc atgaacactg cgttggattt gcccgaacag gagaggatga tgcagtaaag 60
 tagcgttaagt attttcctta gtttttgaga accaaggtat caatccagta ggagaccacg 120
 cacaagtccc tcgtaccac acaaaacgat agtaactcgc aaccaacgct taggggttgt 180
 caatcccttc acggtcactc acgagagtga gatctataga gataatattt ttggtatttt 240
 tgatagatag atgcaaagta aaaataaagg taaagtaaaa acaaagcaag taaataaagt 300
 gatatagatt gatatgatga gaatagaccc gggggccata ggtttcacta gtggcttctc 360
 tcgagagca 369

<210> 9258
 <211> 454
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-E4

<400> 9258

cgggtcgacc gggatcagaa ggatatggac aacgcagatg cagctggaga acttgtaggt 60
 ccgattcctc ctctgccgga tgctcaagtg gataatgatg gagcttcagt tgaacagagt 120
 acttctaacg ctaagagtgg tgagaacggt gccatgaatg agggagctgt tgacaagggt 180
 gattcgtcca aattagatgg tcaagacaat accaatggta gcatggatgt tgatgctggt 240
 agccaggaag agggaaacaa tgttcctgcc gctcctgatg ctacaattgt agatgtaggg 300
 aacacacctg tatcttcaga ttaagctgtc tcgaatgaag agagtgcgt ggtccctgaa 360
 tgaaacatct accacatacc tcatctgcgg cgcatgtcac aagcatgatg aggaaggtaa 420
 ctagaaacag gatgcagttg caaagtgtga aact 454

<210> 9259
 <211> 307
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-E5

<400> 9259

acggggtaag ttacgtgatt cataagggag atgtgagagt caagatgatg acaaccccat 60
gacttcaagc tcaagatgga cttcaaaatt cactactgga tggaggacgg ttgacgggca 120
ccctacagaa accagcggat ggtcgggatg catggagaag cgccatgaca tcttgcgga 180
agcttcaccc agccacgatg agatggatgg ataccccatt gaccggaagc ttacatgtgc 240
agccgcaagc cattatgggc cctgtcttgt tcgaccctaa gcgttacttt ggctggaagg 300
tgctacc 307

<210> 9260

<211> 413

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-E7

<400> 9260

caggtagtag tcaggaatgc ccggctgacg ggaagggtga tcagctggat tcgtatgaaa 60
ttgaaggagg tgaaacaaaa tcagaaatcc tgcagaatct taccgagttc cagttttctt 120
gtgttatgta taatgctggt ctagagaatg cgtgcagtga gcttggtgcc cgtatgtctg 180
ctatggacag ctccagcaga aatgccggtg aaatgcttga ccgtcttaca ctgacataca 240
acaggacacg tcaagcatct atcactactg agctcactga gatcatatcg ggtgcctctg 300
ctcttgaggg atgatgatga aactttacgc tatcatcttt tttatttttc tgttccaatg 360
aaggccactt ctaatctaaa aacagccttt tgcattctcc tgtgattgga tct 413

<210> 9261

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-E8

<400> 9261

acgggcatcc ccagcttgca acaaaaaatc gagcgcccag ggagatgccc agtgctgcaa 60
cctacgacga aaaaagcttc aaccagctac gggaaaagtt tcaaactgta tgacagaaac 120

ctatgaacga ccaaagaaaa gttacaaccg gtgacaaaaa aaaacttcat ctgacgacga 180
 aaaaagcttc atccgacaat gaaaaaagct tcaactgtga agccgtaagc catggacgac 240
 aaacgaaaaa gttacaaccg gccgttgcaa aagctacaac cgcattgaaa atgtcacaca 300
 gtcatagcaa aatgttggtta caattgaagc atttctgtta gcggttgcaa cttttctaata 360
 ttgcatgggtg tctagttgta gctttctctc tcaatgggtg gagctttttc caactacagt 420
 tgaagcttt 429

<210> 9262
 <211> 388
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-F1

<400> 9262

acggtggata aaggcatccg cgtctcgttg tcaatcaatg atgcatgctg ttttaccgcc 60
 gcggttgaca cgacagcagc tccttgtgcc gaccctttgc ttgccagtga taactccaac 120
 tacgttaacc atttggttg aaaaaatttg atttgttttt gacgggtaat ttttgtttcc 180
 attataggtg gacacatga tatactccct ctgtttttga atataagccc ttttagagat 240
 ttcacgata cggaactacat acggatgagc aagttgggag gctagtgcact tatattcagt 300
 cgggtgatgag atgagatgag tcgactttga cgtggagtat ggaagcaaac tgtggaaagt 360
 tggaccggca accatggcca aggaagca 388

<210> 9263
 <211> 350
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-F12

<400> 9263

aagtcccgga cagacgggca gcggacggat gtatttgctc tccagtgcac gtgttgctc 60
 gattgacgac ttgttttctt ctatgtatcg aatatgtgga atattatttg taatatactt 120
 gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaacaaaaa 180
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa ggggcccccc 240

aaaggattca aacttaattt acctttaaaag gaaagttaaa acccctcaaa aatggcacca 300
 aaattcaatt aaagggccct tcttttaaaa ggttctaacc ggaaaaaccc 350

<210> 9264
 <211> 339
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB104-062-Q1-E1-F5
 <400> 9264

acgggaagaa gncccgagga ggagctagga actgaatatc tgggtgcagcc gcttggccgt 60
 gctgaagacg aagagcattc cagtgacttc gagccagaag aaaatgggtga tgggtgctgag 120
 gacgaggaga ttgaggatga cgatgctgag gatgggtgagg atcctgtcaa ggcgcaatcc 180
 tcatcaaaga ggaaggggtc tgggtgggaa gatgaagatg atgacgacgg tgatgatgat 240
 ggtgatgatg atgagaagcc tccatcaaag cgatagtcaa tttgttcgtg ctgatctgtg 300
 atcttctctg cttgggcca gaaggaaaat aatcctcat 339

<210> 9265
 <211> 357
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB104-062-Q1-E1-G10
 <400> 9265

catggnagat atagtgagag ccgaacaggg agaccaccgc tgactctgat gctcgccatt 60
 ctccccgaca aggcgatctg gttggaggat gtcgaggatg cgaagctagt gaggcagttg 120
 tccgcggagc cgcccggaag gccagcaaat aacaccgagg aacatgaggc gtccccgaat 180
 tacttgtcgc acgtatggat gtatctagat gtattttagt tttagatata tccatttcaa 240
 cgacgagtaa tttggaatga agggagtatg agatcaaggt ctcatattata ctacatatct 300
 gctcaatgct tgcahtagaa agcttttctc attgttgtgt ggcaagagct gatattt 357

<210> 9266
 <211> 405
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-G12

<400> 9266

```
tccccgggccg acgggggatga tagaagctct tgagaaagtt gagaaggata ttaagaagcc   60
tcttctgagg agtgacaaga agaacatggg tctcctcttg gcagagtttg acaagataaa  120
caaaaagctt ggcattcgga aggaggatct tccaagatt gaggaaaatc ttgaaatgga  180
acttgccaaa gctgagctga cggaacttaa gaaggaagtt gttgaagcaa tggaggggtca  240
actaaagagg gaggagttta aagatgaggg gatgcctgac gtcaggaagt tggacattag  300
aaacttcctc taagtccttg attgatgata acccttgggg tgaccgatct gtgatttttc  360
ttttcaagtg acggcaggtg ctgttagcca caccgaatgg atgtt                               405
```

<210> 9267

<211> 370

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-G2

<400> 9267

```
cgtgaagatg aacagatcga gtctgtacc tgtgtgcccc cgggcttaac cccttggttc   60
cttccttgaa ttaaaggacc tgcgttccca aaaccctttc gatctgttgg agtcagggtgc  120
gatgtgcccc cggttggaag gagttagttg caagccagct agatggttgg ccgggtcatg  180
ctagtgcatt catgggctag cccggcgggt catgtgggtca tgcattggata tggatcgtgc  240
atgtagtggg tagcctagtg cgtgagttag ttgccgggtg tgcaggccgt gtggtgtgtg  300
tgcacgggta taaaaacccc tctccatgt actgatccag ttgagccggt gtgtagccat  360
gttaccactg                               370
```

<210> 9268

<211> 445

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB104-062-Q1-E1-G6

<400> 9268

aatgcccggg tgcacgggaa ggtaaagagg attaacgctg tgcgcgtcgg cgagggaggg 60
aatccactac cgggtgcagct gttcactttc acccagcggc ggcgcgggaa ggcctccgag 120
ccctttcttct tgcgcgccgt cccgtcgccc accgaaccac gcaccaagaa ccttaaggta 180
taatttactt attccacatg cattgctcta gttgcatgta taccatgaat ctaggacgtg 240
gttcaaagag gaaaggagtg ggggaaagta gtgggaaaag ttgtatagca tgaatctagg 300
acgtggttca aagaggaaag gaagggggaa agttgtatag catgaatcta ggacgtggtt 360
caaagaggaa aggaatgggg gaaagtagtg gggaaagttg tatcacataa atctaggacg 420
tggttcanag aggaaaggaa agggc 445

<210> 9269
<211> 78
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB104-062-Q1-E1-G8
<400> 9269

acgggaaagt taacacgttg cgtacccttg ttcttgtttt cgaacggttt ctacctcgga 60
tttcaactgtc ttgatgtt 78

<210> 9270
<211> 370
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB104-062-Q1-E1-H10
<400> 9270

cccgggccga cgggcacata agtctaaaga tgaccgctaa accagcatat ataaaaata 60
tgcagatggc agcaagccca caccaaaaag tcattttctc caaatctatg gctaccttta 120
aaagcatatt gaaagtggag ggtgtaacaa atagtgatga tcacaacttt tcacattagc 180
tagtcattct gttttctctg actattgatg cagtgtaggt agattgttat gaaggagcta 240
cagaaaactc catcaagaaa atgtcaataa acttatgatg attgtaacct agattaagct 300
taactagaaa ctacgtaatt tgtaacagtg gtaagggttt gctgcatgat tcatgctcat 360

taacanagct

370

<210> 9271

<211> 214

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-H12

<400> 9271

gacgggaatc agacatgttg acatcgaggc gcacaacca gacggtcttt cagtttagag 60

tagcattttt tgtacatttt tatggatata ttcggttgat tgatcacgct tgctgatcaa 120

cgccaatctg atttgttcta tgacctcttg atacttttaa cccccaatta attaaggcaa 180

tggcccccat gttaaaaaaa aaaatttaaat aaaa 214

<210> 9272

<211> 226

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-H3

<400> 9272

tgcacgggga gggaaatttg gattgaactg ttctcggttaa aattctgtgt tcaaaagggc 60

actgaagaat gttccctgga aaataatgta catattgctg tcttttcttt ctcttgtaaa 120

taaaatgaac agtatagaaa ttccaggatg aaccaactag gaagacattt gcgttgata 180

ttaattaaaa cctattataa ttgttgaata ttcaattttg taaaaa 226

<210> 9273

<211> 345

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-062-Q1-E1-H6

<400> 9273

acgggcaatg gaggatgtag gtgtgatatg tcaagtagtg gacagataag ccaaccactg 60

gatgtggttt tcagggatit ttgcagtggg atttgtaggg tactatgctg cgctgtgttt 120

gggatttgaa ataaaacgat gggagatgtg ccacgctctt aaatgccagt cttctgtctt 180

aatcttgcta aattacttgt tgcattttgc aaaacagaaa aaaaaaaaaa aaaagcaaaa 240
 aaaaataaaa catccaaaca attgcacaac cagaaatgga aaatgggaca caccatttaa 300
 acggcccatt aaacacagaa aaaaaaaatg gggcccctca aaggg 345

<210> 9274
 <211> 330
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-062-Q1-E1-H8
 <400> 9274

cgggccgacg gggaaaatca ccacgacgga ctgcatctgc ccagacgatt gttgcaacgg 60
 ccacgacaaa gtgcatctct caattccggg atcagcatgc tggatgaatc ctccttgctt 120
 gttaagttgc aacggtgcaa ccaaacacca tggaggctta gggacggtga atctgcatcg 180
 acagtgatgg atggaaattg ctgcccctcc ttcctccata aaccacgggg accttgtaca 240
 gttgtattag cctccccatc tatccgtcag gaagccctga ctttccctgc tattgctgtc 300
 gaaaatgcta cccttgcaga acatgacctg 330

<210> 9275
 <211> 293
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-063-Q1-E1-A3
 <400> 9275

cgggccgacc tccgcggacg aggtgcagcg catgatggcg gagatcgaca ccgacggtga 60
 cggcttcacg gacttcagcg agttcatctc cttctgcaac gccaaacccg ggctcatgaa 120
 ggacgtcgcc aaggtcttct gaatcagttc atttcacctc agccgtccga tccaggagcc 180
 gatccatcta cgtacggctt cgtatatcaa tttcatgcaa ctacctactc cggccccgat 240
 ccagcctcag cttcacctga ggccggccct aattttgttt gatcattttt ttt 293

<210> 9276
 <211> 319
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-A7

<400> 9276

acgggagagt tatggaagct gctcagcctc aagcacggca gcggcaacga ctgcctcctc 60
gaggatttcg cgacgcacgg aggagacacg aacgatgttt ttttcgacga accggatcat 120
gagcatcaga aacccatggc tcttcttatg gatttatatc caggagtgtc tacaggaata 180
catagcatcg actaccagat cctattcaac cagaaaacta gctacctttc agaccatggt 240
ggtggtgccg gcgacacttg ggctagtgga taacatcacg gccacaagt cgtggacaac 300
atcctggaca tggtaaatac 319

<210> 9277

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-A9

<400> 9277

gggccgacgg ggtttaccac aatcatcatt gctgtacaca ctttttgaga gagccataca 60
tgatttgga tttgttagaa tactctatgt gctttgctta tatcagttga cttatacagt 120
tttgctctgg tacttcactt atatttttta gggcacggtg gtggagtgtt tttatagaaa 180
ctattgatct ctcaagcatc acttagatta ttctgagagt cttaaatagc atggtaattt 240
tcttaaataa tcctaatatg cttggtgttc aagaatagta aaaactttct tatgagtgtt 300
atgaatgcta tgagaagttt gatgcttgat aattgttttg agatataaag atggtgatat 360
taaagttgtg ctagttgagt agttgtgaat ttgagaaata cttgtgttaa agtttgtgat 420
tcccgtagca tgcacgtatg 440

<210> 9278

<211> 213

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-B1

<400> 9278

gggtcgaggg cgaagatatg attaagaagg ttcaggagct gaaggcgaaa gcgaaggctg 60

ctttggagaa tcggcggtc ttcgtgcatg aatctggaca agctggtcca atccgtcgtc 120
 agaaaattag cgcaccatgt cggccctgaa taaattctgc ggctttcact cattgatgaa 180
 cagattgggg ttgtttcctg cgtgcgtgga aga 213

<210> 9279
 <211> 427
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-063-Q1-E1-B4
 <400> 9279

gggtcgacgg gtcggtgtac gtcaggatac atacttgatc cttttctgct tcggggtggt 60
 gagaaaaatc gtcttgcgag cacagtcgat gtttccttca aacttgggtca accaatccat 120
 gcctagaatt acatccaaac tctgggattc caatactatg aggtctgcgg aaaaatcatg 180
 gtttccgatg ctgagggtcg aatgacagcc taagcctgcc gtcacccctc cccctggggg 240
 aaataactga aaccgggttc taagggttct agtgggcaac cgtactttt ccacaactac 300
 ccttgatatg aatgaatgcg ttgcaccgga atcaaagagt accaatactg gatgtgaatt 360
 taataaaaac ttaccaacca cagtgtctgg ctgatcatag acgtcttcca cgtcaagggtg 420
 attcacc 427

<210> 9280
 <211> 197
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB104-063-Q1-E1-B5
 <400> 9280

gggccgacgg gtagctcaag acgctcacc agttcgtcgg cagtcaagtc gaggcaagga 60
 tgaagatcta cgccgtctca acgaggcatt atttcgcctt cgggtgcccta gtctctgagg 120
 aacactccta cgtcatcaat gcgttgcccta aactccgttg gggtcgtcca gaatcccatg 180
 tgaatgtcaa attgcca 197

<210> 9281
 <211> 298
 <212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB104-063-Q1-E1-C5

<400> 9281

```
cccgggccga cggggaaccc aacatgactc tactcgagct aactgtcact cctgccttgt    60
tcacatctat ctccctgcct ttcccctcct agtcatcccg tgagatggac agaccagcg    120
cactccgaca atggctgccc acgcgactgc caaccacatt tcgatcgta tctccatcta    180
ccatccgccc ctctgcttcc atttgcaatt ctctggggg atcgatttcc aggtctgctt    240
ccagcgcaac atcgtctggg aactcttcgg cattatctac acgctctggg tcatcacc    298
```

<210> 9282

<211> 109

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB104-063-Q1-E1-E11

<400> 9282

```
tcccgggtcg acggggacga cgacagtgtc tcgggtggtg acggtgattg tgtccgcgaa    60
aagctagaag cctccaacaa tagcttcaca acggtcaaca tgatcttcg                109
```

<210> 9283

<211> 452

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB104-063-Q1-E1-E12

<400> 9283

```
gtcaggaggt cccgggtcga cgggccctta gccgacgtct cggtgcccga aggtggttgt    60
gttggtggaa acaaggcaat cagatatagc agctttataa ctttcactta gtcataggag    120
cttaaagttg ggaggcgagc aagtagcccc ctgcttagtg tttggcgaca gccaaaggtca    180
agccgtaaac acttcggcca atgttatgaa cggcccgta tttaatatag ccatcggatc    240
actgaccggt ttatgcttta ttatggcagt cagttttcgg ctttctccac cgagggtgctt    300
aaccatgcga gctggaagca caatcgcagt ggttatcctt ttgcacacct aaccgaacaa    360
agcggaatgt aggaggcaag cacaggagcc gggcaacca actatcgacc gaagacacaa    420
```


tttgaaaccg atgcatatTT agcaatatcc aa

452

<210> 9284

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-E2

<400> 9284

gggtcgacgg cagtcgctgg tctgactgaa ctgctgggac tatattaagt cgccggtctg 60
cctgagccgc ctctgtcgcg attgtccgtc gtccgaaaga atcaagtcac atctctctaa 120
atatatTTta ataacacatg ttgtTTTTaa ccaagaacaa attactttgg ccaaaatatt 180
tttgtaaaca ggataattat tcaactacaaa tagggTTtat gccacgggtg tggaacacgg 240
gctgatagtg ttccgcccag cgatagtctg tgacatatTTa cccgatgaat ggacgcgcac 300
aagccgccgc cctagtggcc cggctcacat cgacttgccg ggatcgcggtt tgttcgcttt 360
tcaatggacg tgcgcaagtc gccgcccatg tggcttgatc tacatcaact agtccggacc 420
aagcctg 427

<210> 9285

<211> 98

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-E4

<400> 9285

gggccgacgg gcacattaat cacaagtcac tctaaaagat ttatccgtat tgtcgcttcc 60
cagccactgt aggtcacttc aagagagtat gccaaatt 98

<210> 9286

<211> 193

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-E6

<400> 9286

cgggccgacg ggcatacaag gtttaccgga gatcgggggtg atgtagagtg cgaagtcgcg 60

agtttgccac ttgttaaaga ttcctcccta catagcggtg tcatgccatg tgtggcttgc 120
tctcaccagg gaagttgagt tgttgtagt tgtgtagcag aatgatgctt tctgcctgtg 180
gaagtaaaga cac 193

<210> 9287
<211> 110
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-E7

<400> 9287

agtcccgcc cgacgggat cacaagaatg cctcggatca caccaataag gaccgcatc 60
atactaagga ccgcgagcac aaggatggca tgattaagca catcatgacc 110

<210> 9288
<211> 364
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-F10

<400> 9288

ccgggtcgac ggggattgtg aaagttcgga cactgtagac tactgaggtg ttcaaacaca 60
gcgaaggcta aatcgactac taacggcaca gcaacatcac gatgacagct atagctattg 120
acacagctca ggacgctctc gtgcatcatc gcacaatgta ggcgaaatcg atgaacgctt 180
gggagaagtg tggcaaacag atacagtcgc aaggtatggt gcatgtgata tcatatctct 240
gcaatgcttt acatgtctca cagatcatgg gacgtcgaat aataacctcg ctgcagtgaa 300
cagcacggtg cttgtaacat taacgtcaat caatcatggt ggcatcaccg catcgccgtt 360
ggta 364

<210> 9289
<211> 354
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-F4

<400> 9289

gggtcgacgg ggcggggacg gcgtcgggtg tgaggtccat gaacgacaag ttcgacctgg 60
tcctcgtcgg acggagaggg gaggacaggg acgtcgaggg gtcggcgctc acaagcggcc 120
tctcggagtg gaacgagtgc ccggagctcg gcgtgctcgg tgacatgctc gccaccgcgg 180
agttcgcgtc caaagtgtcc atcctcgtca tccagcagca ggccgggatt accactggcg 240
gcgatgccga ctatcaataa tagggactgg ttcgactttg gttcatcggt acattgtttc 300
tttctcgttg aatatatgta tgtatgttgt aatgaaagca aggtaaattt gtgc 354

<210> 9290
<211> 237
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-F9

<400> 9290

ccgggccgac ggggaacgtg aaagtgtgcg ccggtacgct atgagctgtt catacagagt 60
gaaggttcat ttgtatcttg acagatgacc caacttctgc tgttcattgc agctgttttg 120
aactatgaag aggatctcga tctacactc gtgtgtcagt tcaattacta ttttagatgc 180
atgttgtcgc tgtgttgttg cactgccagg tagacgtgca tgcgtcatca aagctca 237

<210> 9291
<211> 419
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-G7

<400> 9291

at ttgacaca aagaaaaatg tcacggaaat ggtgccccga aaaattttccc ggccaaggat 60
gcaacgcaaa gagccaaatc cgtgggggggt ttgacgtccc tcgtgtcact gatgacctgt 120
tgatgaagaa ggcatat tttt aggaagcaac aacttgacaa caaaacaaca tcacctaaact 180
ctaactgaag aggacagccc gtgtgatttg cgcttacatt gatatcgcat gcgtatgaat 240
aatgggtccaa tggaattggg agcggagtaa gaagctcatg ttgcctttat gcatgtaata 300
atcatgcctg cctgcatggc ccgctagctg ttggtccaat gcctggctgc ctgcctgaac 360
tggcgtcaat ttccagtttg tttttgtaat atataataac tcttctgtat tgtgcatta 419

<210> 9292
 <211> 450
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-G9

<400> 9292

tcaagaagtc cggggtcgac agtcaattaa atgtgtttgt ccaacgggtcc cagaggatag 60
 gcttgtcaac tgtagacctt tccacctcct gtgtgccact gtggcaaccc ctttttcta 120
 taaaaggagg cccgagggtga ccaggagggg gattcggctc ttttgggcaa agttgcaccc 180
 cgtagctagc tcaagaacac aagaacactc gaatacatcc accaaagcag gactacggta 240
 ttacgcattt ttgtggcccg aacctgggta aacgatattg gtgcttcctg tagaccgct 300
 cttcgcacaa cctcgcaccc gccaaaccata aaagggatcc cagtgacccc ataggtgtcg 360
 tttccactta cttctctggc gcgccaggta gggcgcgcaa ttgtgagaat ctggtctggt 420
 cggggcagcg acttcattat ggctgtcatt 450

<210> 9293
 <211> 397
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-H2

<400> 9293

gggtcgacgg ggacaacaat gacctgagga gcaggcacca gcgcaagatc ctggagcgcg 60
 caaggaagat gtcagagaag attgggatgc tggaagtgga aatgcagaag gtccagcagg 120
 ccctggtgaa gtatgaggag gagcagacga cgtcgaaaac cgtgggttcag cggccaagg 180
 tgcaactggt ggactatctc tacggtcgaa ggcgggaaag ccggaagccg cggttctcgc 240
 cctgcggttg catgagagcg aaaaccattg atgactgact ctgccttcgt tcgcgccgct 300
 cctttttttg aaggcggagt gtggaacgtt ggggttttca gtttcagatg gagcgactca 360
 ttagttcatg tctttctacg taaatacaga aaaaaga 397

<210> 9294
 <211> 472
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB104-063-Q1-E1-H4

<400> 9294

gtacggtcag ggggtcgacg gggatgggtcc tgttgtcctt gacatgactt ccatgtggat 60
gggcatgaca gtcttgaagg gcaaaggcat gggtcgctac tgggcgtcat tcataactcc 120
tggcaaagcc gcttcccagg cagtgtacca tattccacgg acatttttgg tctccaagaa 180
cacccgattg ggtgtacttg aggatgagct tggcaagcct ggaggcataa tcatcgagac 240
agtgaggaga gatgacatct gcgtgttcat ctccggagcac aagcctgcac agataatgcc 300
atgggataag catggatgcc agattaagct catagccgtt gaccacaaca ctccggggatt 360
cgtgaactgc cccccgaaga agaccatcca ggaggtagtc tttgccagct tcggcaaccc 420
ggtgggggtca tgccggaact tctctgtagg aacctgtcac gttcccaatg cg 472

<210> 9295

<211> 336

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-A1

<400> 9295

ccaccagatc tcagagatgc ctgatcttgc tttcaccata gcacacaaga ctttcacctt 60
gacgccagag cagtacgtcg tgaagctgga gcaatcaggc cagaccattt gcatcagtgg 120
gttcatggcg ttcgacgtgc cggccctcgc cggtccgctc tggatacttg gagacgtctt 180
catgggcgcc tatcacaccg ttttcgactt cggtgagagc aggattgggt tcgccaaatc 240
cgcgtgagga cttggtgtat caaggttcat ggccggtatt gtacatactg caagcacgtg 300
caagttgcaa ggtcaacaat aaacttatac ggagta 336

<210> 9296

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-A4

<400> 9296

gcggtcggct tcacgggtcg acggacaaga aacagtagaa cacgatgcgg gagatcaagg 60
 tgcagaagct cgtcctcaac atctccgtcg gcgagagcgg cgatcgctc actcgagctg 120
 ccaaggtggt ggagcagctg agcgggcagt cgccagtttt ctccaaggcg aggtacactg 180
 tcaggtcttt cggcattcgt cgtaatgaga agattgcctg ctatgtgacg atcaggggtg 240
 agaaggcaat gcagcttctc gagagtgggc tgaagggtgaa ggagtacgag ctcttgagga 300
 ggaacttcag tgacactggt tgctttgggt ttggtattca ggagcacatt gatcttggca 360
 tgaagtatga cccatcaacc ggcattctatg gtatggactt cttcgtgggt ctggagcgag 420
 ctggataacg cgt 433

<210> 9297
 <211> 395
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-001-Q1-E1-A5
 <400> 9297

actggttaata caaaaaatga gcaatgatat ttatcagtca gtatcaggcg tacaccgtct 60
 ccgctctgtt atcgcatcgg acatcaatat tccatcatcc actctactgc ctctaatagc 120
 aaagaggtcg agatatattt cgggtgctgga gttaagtggc ctaccattg agaaggttcc 180
 agatggtatt ggagatcttt tcaatctccg ctatttgggt ctgcgtgggt caaaagtgaa 240
 gctccttcgc aggtctatcg agaaactttc aagtttggtg aactggacc ttccagggtc 300
 tggcatgaac gagctgcta gaggcattgg tgaactataa aagcttaggc agttattcac 360
 tgacaaagct attgatcgat ttacgacaga tttcg 395

<210> 9298
 <211> 432
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-001-Q1-E1-A7
 <400> 9298

acggttaagga tttcccgggc tcgactacct gatccactcc aagtgggtgc cctgcctcga 60
 gttcagcaag gttggcttcg tctttcgtga gcacaacagc tccccgggt actacgacgg 120

gcgatactgg acaatgttga aactgcctat gttcgggtgc aacgacgcca cgcaggtgct 180
 caacgaggtg gaggatgtca agaaggagta ccctgacgcc tatgtccgcg tcatcggctt 240
 cgacaacctg cgccaggtgc agtgcgtcag cttcatcgca ttcaggccac cgggttgcca 300
 ggagtctggc aaggcctaaa ctacgagttg aagcaatggc ctatgtatga gtgtcctttg 360
 tgaacttcac ttttgtccag gactctgctt tccgaccaga gcatatTTTT cgttcggtaa 420
 gatctgtggt tg 432

<210> 9299
 <211> 371
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-A8

<400> 9299

ccggctcgac agcttcccaa gacaagccat cgacgttttc ggtgcactgc gtgctcgggc 60
 gtacgacgac tatgtgcgca agtgggtgac ctctaacggt atcgagaaca ttggcaagaa 120
 gctggtgaac tcgcgggacg gaccagtgc ctttgagcag ccaaagatga cagtggagaa 180
 gctgctagag tacaggcaca tgctcgtcga tgagcaggac aatgtcaagc gtgtgcagct 240
 tgctgacacc tacatgagcc aggcagctct gggatgatgct aaccaggatg cgatgaagac 300
 tgggtaccatc tacggtgaaa gggcacatca tggacttttg cctgtaccgg caggatgcac 360
 cgatcggact g 371

<210> 9300
 <211> 430
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-B3

<400> 9300

ggtcggactc acgggtcgac ctccgttggc gagaacggta agcttgtcga tgcggggtgg 60
 ccgtctgtct gggtcaggat cgcgaccag tgggcaacgg caggtctgtt catctggtcc 120
 ctcgttgctc ccctcctgtt ccagacagg gagttctaga tcgacctggt tacctgctaa 180
 gagtgcacatca tccgttttga gcacctactt atcgatcga acgtgtttcg gctgtgatga 240

tagctaagct gactatctgt atctggtctg taatattgtg tgagcaaacc catggcaagg 300
agctggtggt tgtgtgacgt tgttgagtct ggtttgcata atgtgtgacc taaggcattg 360
ttgccagtat ttcaacagtg aagatacgtc ctttggttgt atatatattg aagttgatca 420
ttctctgttg 430

<210> 9301
<211> 452
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB29-001-Q1-E1-B4

<400> 9301

ccggtccgga ttacgggtc gacatgcagg aaggaacact tgaaatcggg attgagtaca 60
ggacagtttc tggagttgct ggtcctcttg tgattcttga caaagtgaag ggtcctaaat 120
accaagaaat cgtcaacata cgattgggag atggcacaac taggcgtggt cagggtgcttg 180
aagttgatgg agagaaagct gtggttcagg tttttgaggg aacttctggt attgacaaca 240
aatatacaac tgtgcaattc actggtgagg ttctaaaaac tccagtatca ctggatatgc 300
ttggccgcat tttcaatggt tctgggaaac ctatagataa tggcccacca attttaccag 360
aggcgtacct ggatatttcc ggaagttcta tcaatcccag cgaacggaca taccctgaag 420
anatgattca gactggcata tctacaattg at 452

<210> 9302
<211> 419
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-B5

<400> 9302

gggtcgacta cctgatccgc tcaaagtggg tgccttgctt cgagttcagc aaggttgggt 60
tcatcttccg tgagcacaac gcatcccctg ggtactatga tggccggtac tggacaatgt 120
ggaagctgcc tatgttcggg tgcaccgacg ccacacaagt gatcaacgag gtggaggagg 180
tcaagaagga gtaccctgac gcgtatgtcc gcatcatcgg attcgacaac atgcgccagg 240
tgcagtgcgt cagcttcacg gccttcaagc caccgggctg cgaggagtcc ggcaaggcct 300

aaacagctca ctcacgacag gccatatata aagtgccatt gcagttttgt caactctgac 360
attgctttgg gttttccttc tccatttatc tttcttattt gttcctaaga atatgtgta 419

<210> 9303
<211> 386
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-B8

<400> 9303

gggtggacta cctgatccgc tcaaagtggg tgccttgcc tgcagttcagc aaggttgggt 60
tcatcttccg tgagcacaac gcatcccctg ggtactacga tggccggtac tggacaatgt 120
ggaagctgcc tatgttcgga tgcaccgacg ccacgcaggt gatcaacgag gtggaggagg 180
tcaagaagga gtaccctgac gcctatgtcc gcatcatcgg attcgacaac atgcgtcagg 240
tgcagtgcgt cagcttcacg gccttcaagc caccgggctg cgaggagtcc ggcaaggcct 300
aaacagctca ctcacgacag gccatatata aagtgccatt gcagttttgt caactctgaa 360
attgctttgg gttttcctct ccattc 386

<210> 9304
<211> 386
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C1

<400> 9304

ccacctgtgc tgagaaatcg acggccagca cctcacctcc gccgccatcc tcggccacga 60
cggcagcgtc tgggcgcagt cccccaactt ccccagttc aagcctgagg agattgctgg 120
catcattgaa gactttgacg aacctggaca ccttgacca actggtcttt tccttgagg 180
caciaagtac atggtcatcc aaggtgaacc tggggttgct atccgaggaa agaagggcac 240
cgggtggcatc actatcaaga agacgggcat ggccctgatt ctcggtatct acgatgagcc 300
catgactcct ggccagtga atttggtcgt ggagaggctt ggcgactacc tggtcgaaca 360
cggtttctaa gcccgccctg atatgc 386

<210> 9305
 <211> 362
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C11

<400> 9305

```

ggaggagttc tcccccaatc cctcgttccc ctccgcccta cacgttctcg cccacgtcgc   60
cgccgccagc tcttccccct ttcgccggag ctcttttctc cggcagtaga gatggtgaaa  120
gacgcagtcc gctatgagcc tggaccggcg tttcaggaga gtggagagca gggcaagctt  180
gagataccag catctggctc cacagaatth tggctaatac agtggcctcg aaaccatgta  240
aatgcttctg attttaatgg tcaagaagtt tctcttaata agcatcatga cgatggaaac  300
ttgggaaatt tggagagttc ttcggggaaa tcatatgaac tcgttagctt tgctgctcaa  360
ca                                                                    362
  
```

<210> 9306
 <211> 444
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C5

<400> 9306

```

ccgggtcgac cgccgcgggt aactagtgtc acgcaaccgt cgcgccccgt gcccgctcct   60
ccaccatcgt cgccagcctc ggcacccccg cgccctcaa ctctctctcc ttccgccccca  120
agctcatcag gaacacccca gtccaggccg cgcccgctcg acccgcatth atggacgccg  180
ccgtggagcg cctcaagacc gggttcgaga agttcaagac cgaggtctac gacaagaagc  240
ccgatttctt cgagccccctc aaggccggcc aggcgccccaa gtacatggtg ttccgctgcg  300
ccgactcccg tgtgtgcccc tcggtcaccc tgggcctgga gcccggcgag gccttcacca  360
tccgcaacat cgccaacatg gtcccgtcct actgcaagaa caagtacgct ggtgttggtat  420
cggccatcga atacgccgctc tgtg                                     444
  
```

<210> 9307
 <211> 357
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C6

<400> 9307

gacacagata atgatggaga ggattaacta cgaggaattc tgcgctatga tgagaggagg 60
gatgcagcag ccaataaggc tcaagtagtc tttccttgta gaaatggtgt accattagca 120
actgttcttg gttccttttt tttcgtgct gcacggatga gaagttctct ttggcgttgt 180
tgagatgatt gtgtatatct tgtggccttt tgctcgtgca tgttgttcct caagtgtttt 240
ggacctactt tctgtaagtt ggtttttgca agtacatcta ataaaagagt atttttgcac 300
gtcaaagggtg catattttaa aaaaaaaaaa aactaaaaaa aaaaaaagcg gccgctc 357

<210> 9308

<211> 269

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C8

<400> 9308

tgatcagcta agagtgggtg ccctgcctcg agttcagcat gggtggcttc gtctttcgtg 60
agcacaacag ctccccggg tactacgacg gccgatactg ggcaatgtgg tatctgcta 120
tgttcgggtg caccgacgcc acgcatgtgc tcaacgaggt ggaggaggtc attgaaggat 180
tatcctgacg cgtatgtccg cgtcatcggt ttcgacaacc tgcaccaggt gcacttcgtc 240
agcttcattg cattcaggcc acctggttg 269

<210> 9309

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D12

<400> 9309

gacaacttac aaggcttgaa ggggagaaga gcagctcaa gaggtcgggc agcaaacatg 60
gcattctgct gccacacag caccacatcc ctgcgtccc catgcaccac catcccaaac 120
tctggcttca ggcagaacca agtcacctc ttcacgacca gaagcagcag gaggagtaac 180
acgaggcatg gggcaaggac cttccaggtc tcatgcgcag ttgagcagcc aatagtgatt 240

ggcctggcag cagactcggg atgtgggaaa tccaccttca tgcgccggct cacaagcgtg 300
 tttggaggtg ctgcagagcc acccaagggc ggcaaccag actccaacac gctcatcagc 360
 gacacgacga cggtcatatg ccttgatg 388

<210> 9310
 <211> 437
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-001-Q1-E1-D6
 <400> 9310

tacggtacgg atgttcggg tgcactacct gatccgctcc aagtgggtgc cttgcctcga 60
 gttcagcaag gttgggttca tcttccgtga gcacaacgca tctcctgggt actacgatgg 120
 ccggtattgg acaatgtgga agctgcctat gttcgggtgc actgacgcca cacaggtgat 180
 caacgaggtg gaggaggtca agaaggagta ccctgacgcg tatgtccgca tcatcggatt 240
 cgacaacatg cgtcaggtgc agtgcgtcag cttcatcgcc ttcaagccac cgggctgcga 300
 ggagtccggc aaggcctaaa cagctcactc acgacaggcc atatataaag tgccattgca 360
 gttttgtcaa ctctgacatt gctttgggtt ttccttctcc atttatcttt cataacttgtt 420
 cctaagaata tgtgtat 437

<210> 9311
 <211> 308
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-001-Q1-E1-D8
 <400> 9311

accggtacga tattccgggt gacggtggtc ttttaagctgt cgggactcaa ttggccaatc 60
 accttctagg tgctgacctt ctacgtgcgc ttactggcag ggactggagc aacgatcttt 120
 ctactatttc gtccacatca gagatgcctt agcgtcgatg acggttaaca tcatgtagga 180
 attggcctct gtggcatcca ccttcagatc ctgcttatca tgttttcacg aaacagcatg 240
 acgaggactt cgccaccact ctgccgcact acactttaca atgctgcggc attccggtac 300
 cagcagcc 308

<210> 9312
 <211> 338
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-E1

<400> 9312

gtcgggaatac cgggtcgcacg tcgacgtcat cgataaattg tgcgtctcga ctaacatcac 60
 tagtctcgcg catgacacac atttgagcat gttcaagaac ttgacgagca aggtctgcgt 120
 ttattgcaat gttgggagac aactcaciaa ctcttcacg gtttcccaca ggcagctcta 180
 gactctcgga gtcgcatgtc acattggttg cattgggtcac ggcaagtatc gtcaggacac 240
 gcagcacggc gctaatttca caagtttgag cgtcattac aatgacgatt aggtcgggtcc 300
 cacacgcaca tgtgtcgtct ctatagtttc taggcact 338

<210> 9313
 <211> 443
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-E7

<400> 9313

gggccgcgacga ggccttccaa gcaaagtatg atgtcaagcc gaacaatgcc attctcgccg 60
 acgacaagca cttgcccattg tacgatgagt tgtccaacaa ggaaaatggt gaatacattg 120
 ctggaggagc cagcgagaac tctatcaggg ttgccaatg gatgcttcaa actcctgggtg 180
 caacaagtta catgggttgc attggaaagg acaagtatgg tgagcgagat gaagagcgcc 240
 gctaaagctg caggagttac tgctcattac tatgatgatg acgctgctcc tacaggcaca 300
 tgtgctgtat gtgttggttg tggtgaaagg tcattgattg caaacttata tgctgcgaac 360
 tgctacaaat ctgagcatct aaagaatcca gagaactgcg cactagttga gatagcaata 420
 tacatctaca ttgctggctt ttt 443

<210> 9314
 <211> 399
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB29-001-Q1-E1-F1

<400> 9314

gggtcgacaa gaaccttgct ctattcgaca tctcgatccc cgaccggatt cgctacttcg 60
acgctccgcc agatctgttc gtctacacgg cctctgctcc tcnccccccg gtgcagcagc 120
ttcctcggcg cagcacaaag cagttcctgg ctcatcagtt caccaccggc attctgcagc 180
tcaaagcgga gcactgctac atcgttgccg acctcaatgt ccacctcaag aaagagggcg 240
ctagtgtga actctgtgtc ttcaactccg gcgccaccga ttggagaatc atcaccgagg 300
tgcttgtga taagctccct gacctctggt ttaccgatga tgtgtttgct ttcgatggcc 360
gtttcctttg ctgggtggac tacttcaacc gcgttgtgc 399

<210> 9315
<211> 424
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F11

<400> 9315

attcccgggc cgactacctg atcagctcca agtgggtgcc ttgcctcgag ttcagcaagg 60
ttgggttcat cttccgtgag cacaacgcat cccctgggta ctatgatggc cggtactgga 120
caatgtggaa gctgcctatg ttgggtgca ccgacgccac acaagtgatc aacgaggtgg 180
aggaggtcaa gaaggagtac cctgacgcgt atgtccgcat catcggattc gacaacatgc 240
gccaggtgca gtgcgtcagc ttcacgcct tcaagccacc gggctgcgag gagtccggca 300
aggcctaaac agctcactca cgacaggcca tatataaagt gccattgcag ttttgtcaac 360
tctgacattg ctttgggttt tcttctcca tttatctttc ttatttgttc ctaagaatat 420
gtgt 424

<210> 9316
<211> 358
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F3

<400> 9316

ggtcgggcac tcacgggtgg acgatcttga cgacggactc gtcgctgaca ttgtcgggtct 60
ggaagatacc cttgcagaca ccgatacggg cgtcgcgggg gggagcccag tagaacttct 120
ccatacgacc atcacggatc agagggggcgt acaacgctga gaaatcgta ccagtgcga 180
cgatgggcac acgtgggttc tcctccttgt tgtacatgcc tgggagctgc acattggtgg 240
gggcatcggc gatgttcatt aggggtggcgt tcaccatctg gttgttgacg gtgtactgtg 300
tgggtcccgcc catcctaccc gcaccggcgt caagatcggt gatgaagagg cgtcgacc 358

<210> 9317

<211> 457

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB29-001-Q1-E1-F6

<400> 9317

tcccgggtgg acaagctcaa agagcaaaag agattaatag aaaaggcaga ggaagaggag 60
cgcctaataa aagagaagga agaaaagaga attaaagaag aagctgaaaa acaagcagct 120
gaggaaaaca aagcacctga tgcctctcag gaagcagatt ctgaggacac taatgagaag 180
gcacaagaag atgaaagcaa ggtagttgaa catcatgatg gagatatcac ggaccatgac 240
aatcactcac cagaaggcga gacatctgtt gaagtgcctg acattaaagc tgggactgga 300
gatgatgaac caccggtgga gacatctgca gtacctaccg aggagcagga ccctacttct 360
gtcaactctg aaggtttgtc anaggcggaa ttgggtcgtc tggtagcttc tcgctggact 420
ggagaaaatg tagatgatgt tggtaaaagc gataaaa 457

<210> 9318

<211> 328

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F8

<400> 9318

tccggctcga ctgccaggcc aaggagcccc agggcggcgt cctcgtcttc gtctccggca 60
ccatcaccac cgggtccggc gagcagcccc tcaagttctc acagatgttc catttgctgc 120

cagctggagg gagcttcgac gtgcagaacg acatgttccg cctgaactat ggctaaggaa 180
 gggcgaccgc tctggaggca ggcagcctgt tgagggattt atgttagcac agggaagatc 240
 aggtggatat gctgcaggag tcgttgggtg gtcggcagct tgtgcaggtt ggcgcaggcg 300
 gttgccacgg cttggggagg cagcgacg 328

<210> 9319
 <211> 395
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-001-Q1-E1-G1
 <400> 9319

attgggtgcc ttgcctcgag ttcagcaagg ttgggtcatc tccggttaca cacgcatccc 60
 cggggtacaa cgatgggccc gtaatgggac aaatgtggaa agctgcctat gttcgggtgc 120
 actgacgcca cacaggtgat caacgaggtg gaggaggtca agaaggagta ccctgacgcg 180
 tatgtccgca tcacggatt cgacaacatg cgtcagggtgc agtgcgtcag cttcatcgcc 240
 ttcaagccac cgggctgcga agagtccggc aaggcctaaa cagctcactc acgacaggcc 300
 atatataaag tgccattgca gttttgtcaa ctctgacatt gctttggggtt ctccttctcc 360
 atttatcttt cttatttggt cccaagaata tgtgt 395

<210> 9320
 <211> 414
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-001-Q1-E1-G10
 <400> 9320

cccggctcga caccttcaca agacaatcca tcgacttttt cgggtgctctg cgtgctcggg 60
 tgtacgacga cgaggtgcgc aagtgggtga cctctagcgg tatcgagaac attggcaaga 120
 agcttgtgaa ctgcggggac ggaccagtga cctttgagca gccaaagatg acagtcgaga 180
 agctgcgaca gtacgggcac atgctcgtcc aggagcagga caatgtcaag cgtgtgcagc 240
 ttgctgacac ctacatgagc caggcagctc tgggtgatgc taatcaggat gcgatgaaga 300
 ctggttcctt ctacgggttag aacattctcc atacacacc accatctctt gctgcatatg 360

acgaggtaaa ggggcacagc aacgtacttt gcctgtgccg gcaggatgca ccga 414

<210> 9321

<211> 367

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-G5

<400> 9321

ttccgggtcg actgctacca ccaagacttc aagcatctca gctggtcaca ggcgagcgtt 60
ggctctatca ggtggtatca ggtttccacg atgcgcgggtg agattctaca gtgtttcctc 120
ggttacatcg actccgttcg gcatacctac agtccacacg ccggccacaa gggcaactac 180
ggctagtcca tcatagccga accgctcgga gccattgcac agtcgttcta gggttttact 240
ttggtgaatt tgcgggttgca tcgtcgggtat agttgcgggt cttagcgtct agtcatttat 300
agtttcgagt tctgggtcatg agttgtcacg cagtcgccgc accgatcatc atcgcccctg 360
ccagcta 367

<210> 9322

<211> 422

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB29-001-Q1-E1-G7

<400> 9322

gggcggacat cgatttcaaa gcaatggagc acaagagccc cgagcatctc gtcagaaacc 60
ccttcggcca aatccctgcc ttccaggatg gggatctgct tctcttcgag tcacgcgcaa 120
ttgcaaagta cgtgctccgc aagtacaaga agaacgaagt ggacctgctg aggggaaggca 180
acctgaagga agcggcaatg gtggacgtat ggacggaggt ggacacgcac acctacaacc 240
cggccatctc gccgatcgtg tacgagagcc tcatcaaccc gctcatgcgc ggccctgccga 300
ccaaccatac ggtggtggac gagagcctgg agaagctcaa gaagggtgctg gatgtctacg 360
acgcgcgggt gtccaatcac gagtaccccg ctggggactt cntcagcttc gcggacctca 420
ac 422

<210> 9323
 <211> 427
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-G9

<400> 9323

```
aggtaccgat ctacgaattc gcgactcgac attgtgacaa aaaagagcgg cacctcttat 60
tgattgtgtg tgtgtgtgtg ttgaggaggg gcgattcaaa tcagtggggt gaacttgtgg 120
tagtgctgtg tatgtatttt caaccataaa taggtagga atggtagaaa aatgtgatat 180
aaagtgagag agaagtggac aacaagagag aataagataa tggatgatgca agtcagagaa 240
tcggaactat gcaacatgca aaatcacaaa aaagagggga aattatttcg aaaaaggga 300
aaaagggtgc aatggccata tgaatggtgc cctaccgcat gggttaaagt tctcaatggc 360
acaatggaaa cacctcgtgg tgcagagtcc cacatatgtg tgtttagcca taatataagt 420
agataga 427
```

<210> 9324
 <211> 457
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB29-001-Q1-E1-H1

<400> 9324

```
ggtcggaata ccgggtcgac gacgccttcc tcgctaagta tgatgtcaag ccgaacaatg 60
ccattctcgc cgaggacaag cacttgccca tgtacgatga gttgtccagc aaggaaaatg 120
ttgaatacat tgctggagga gccacgcaga actctatcag ggttgcccaa tggatgcttc 180
aaactcctgg tgcaacaagt tacatgggtt gcattggaaa ggacaagtat ggtgaggaga 240
tgaagagcgc cgctaaagct gcaggagtta ctgctcatta ctatgaggat gaggctgctc 300
ctacaggcac atgtgctgta tgtgttggtg gtggcgaaag gtcattgatt gcaaacttat 360
ctgctgcgaa ctgtacaaa tctgagcatc taaagaagcc agagaactgg gcactagttg 420
agaaagcana atacatctac attgctggct ttttcct 457
```

<210> 9325
 <211> 407
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-H2

<400> 9325

cgcttaaagt tgtcctagat gtaagaaatc agccattgct tattcactgc aagagaggca 60
 agcaccgaac tggatgtgtc gtcggttgca tgaggaagtt gcagaaatgg tgcctgtctt 120
 cggctcttoga tgagtaccag cgcttcgccg ctgcgaaagt gaggagcacc gacctgagat 180
 tcatggagct gttcgacgtc tcgagcttga agcacctgac caactcacat tgtaaccca 240
 gggcgagtga tcgctcgccc ccgacgtcct cccagattct agtacatctc catgctgtcc 300
 tccggcggtc actgaaccga atcagcagtg aataactttt ggaaccgta gaatgaatcc 360
 atgagatagt ggcgagacct ctgcataaaa taagattgaa gaagaac 407

<210> 9326
 <211> 275
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-H5

<400> 9326

tccgggccga ccattctaca caaactgttc agtgacgcgt atcagaggta cttgcgcata 60
 ccactgtccg atatacctct ggtattctgt gcactgccct tgaactgtcc aatggtcattg 120
 acatagatgt aactctgtg ccagcagggt tgcttcaaag atttgtcaga ctactcgggtg 180
 ctggagatac cgaggttcct tacgtccttg atgctctagc aaggaaattg cgagcgccac 240
 ggcggcctca ggatgcgctc gtcattacaa ctatg 275

<210> 9327
 <211> 460
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-H6

<400> 9327

cccggctcga ctacctgatc cgctccaagt gggcgccctg cctcgagttc agcaagggtg 60

gcttgcgtctt ccgtgagcac aacagctccc ccgggtacta cgacggtcga tactggacaa 120
 tgtggaagct gcccatgttt ggggtgcaccg acgccacaca ggtgctcaac gaggtggagg 180
 aggtcaagaa ggagtaccct gacgcctatg tccgtgtcat cggcttcgac aacctgcgcc 240
 aggtgcagtg cgtcagcttc atcgcttca gggcaccggg ttgcgaggag tccggcaagg 300
 cctaaactac gagttgaaac aatggcctat ctcgatgaa ggtcttttgt gaacttcact 360
 tttgtccaca actctgctgc acgactctgc tttcggaccg gatcatacct tttgttctat 420
 atgatttgtg tacgtatgta cgaacatagg ttcttgagca 460

<210> 9328
 <211> 412
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-H7

<400> 9328

acagcgagta tgatttagct acccatgcat gcaactattg gatatgtgat ggaatcatac 60
 agaaagacac agacattgct gaagcatggc aagttgggtga gagactgcaa ggtgatatcc 120
 gatggaatat ggactaccgc gacaatgaat ttccctctcg ctttctatgg tatgccgagt 180
 gcgtaccaca ctgggcatca ccagctcatg gatttgtgct ggtccctgat ggagtcgttc 240
 ctagcagaac gttccagcat ttgacaagc ttggcgtgat gaaactctca aggtgtagct 300
 tcagcttttc atcacctcca tttctctgct gccacagcct tagattttta tggcttgacc 360
 actgtcaaaa cctaggaaag agaaatgggg cgcaatttgg agaagaggac ac 412

<210> 9329
 <211> 359
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB29-002-Q1-E1-A3

<400> 9329

ccaaactggg tgagaagcct gacatgctgt tcgggaagcg tgggaagagt ggccttgtgg 60
 cactcaacct ggatgtagcc caagtcaagg agtttgtgaa ggagcggttg ggagtcgagg 120

tcgagatggg tggctgcaaa gctccaatta ccaccttcat agttgagccg tttgtccccc 180
acgatcaaga gtactacctt tcagtttgtt ccgaaagggt gggtagcacc attagcttct 240
cggaatgtgg aggcattgaa atcgaggaga actgggacaa ggttaagaca gtctttcttc 300
cgactgagaa gccaatgaca cctgatgctt gtgctnccct tgattgcaac cttccactg 359

<210> 9330
<211> 441
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-A4
<400> 9330

ggtcggaata ccgggtcgac tctgctgtct caggccaaac ccttcacgaa cttcatcttc 60
gagcaaaaga tggcattctc tctgcccggg tgctgaccat cttcgctctg atgctccctc 120
atccactcct ggatgaaaaa aactgcatta cataaaggag tacaatcgcc agcgttactc 180
gtactaattt gcatcacaca gcctatcttg aaaataagtt caaatatcta tatgggagaa 240
agtcatgtac gtgtactatg aaaaagtttg tgtacgaaat tgctgatgac attattatcg 300
atgtgttcat ttatataaca cacatagaga gttaatagca tatagatcct tcaaaaatag 360
taggggtcca tttggacaaa caacgggtat tcgcaaaata gtttaacagg ataatgaaaa 420
aagttaacag ttctcacaag a 441

<210> 9331
<211> 445
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB29-002-Q1-E1-A5
<400> 9331

gggcccacaa tggattcaac ggatggaaag caggactaga gagagggttg cttcagagga 60
ctcatggtca taaaaatcct atcattaatt caagtgtct cccgatatat atcccatga 120
tggagtacac tagtataaat aattgttcta tgccaatcaa caacgttgag tggctcgtga 180
accaccggca gagtgcgttc aagtgttaat tatttccagt tctccctcca ttgcacaca 240
tagtccact acttctctat tatcggatgt aataatgatg cttagtctgt gatatgcttg 300

atagtgtgcg tctttgcata ctacgtgaca tgtctctagc angcaggcat gttggaacat 360
gacaatatgg agacatagtc cagagcattt gcctttgtac ttcaatatca gacgttgtca 420
ataattgggc atctaccttt ttccc 445

<210> 9332
<211> 422
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-A6
<400> 9332

gtatatcgaa gtcctagata ggaaagtaga gtaggcacag atcctccaca aaaggcaaaa 60
tgtatatgaa aaaaagattg attgaacttt ccaacggact cattcgatga gtaaacgatt 120
gaatgggatt cgcttgggca acgaaatcaa gtcctggtcc ccttttctct cttattgaat 180
taactaattc atttcctttt tacttttggg tttttttttg atttgatttg gcattattca 240
acaataaaaa aagaaaaatt tcgacaaatt cccttttttt aattatgtga taattatgag 300
aaccaatcct actacttctc ctgcgggggc ttccacaatt gaagaaaaaa gtacaggctcg 360
tatcgatcaa attattggac ccgtgctgga tgtcactttt cccccaggca agttacctta 420
ta 422

<210> 9333
<211> 423
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-B1
<400> 9333

ggtcgggagc taacgggttg acgcactcta ccctggagga agctttgacc cgcttggcct 60
ggccgacgac cccgaggcat ttgcggagct caaggttaag gagatcaaga atggccgcct 120
cgccatgttc tccatgtttg gcttctttgt gcaggccatt gtcaccggca agggcccatt 180
ggcgaacctt gccgaccaca ttgctgacct tgtcaacaac aacgcgtggg cattcgccac 240
caacttcgcy ccggggaagt aagacatgaa tgatggttgg gagttgtatg tgagtgtcag 300
ttgaattgta acaccaacat gttaaatatg agaattgtgt gcaaagacat tgtttgattg 360

gtccaaaacg aggcaacaaa acacatctaa atcggcataa aaccaaaaaa aagcggggcgc 420
tct 423

<210> 9334
<211> 408
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-B10

<400> 9334

gggtcgccga cgactggcca ccagatctac aagcttggag gcattgacaa gcgtgtcatc 60
gagagggttcg agaatgaagc cgctgagatg aacaagaggt ctttcaagta cacgtgggtg 120
cttgacaagc tcaaggccga gcgtgagaga ggtatcacca tcgatattgc tctctggaag 180
ttcgagacca ccaagtacta ctgcaccgtc attgatgctc ctggtcaccg tgacttcatc 240
aagatcatga tcaccggtac ctcccaggct gactgtgctg ttctcatcat cgactccacc 300
actggtggtt ttgaggctgg tatctccaag gatggtcaga cacgtgagca cgccctcctt 360
gctttcactc ttggagttaa gcagatgatc tgctgctgca agaagatg 408

<210> 9335
<211> 430
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-B3

<400> 9335

cgggtcgaca ccttcaaagc gatatttgat gagtttgta agatgatggg aggaaaaaga 60
ccaattacca ttttgacaga ccaagccagg gcaatggagg tcgctattgc ggacgtatat 120
ccagatgcga cacacagatg gtgcaagtgg cacatcctca agaaggccaa agagagcctg 180
gggtctaatt acaccaagaa gtctgatttc agggcagaat ttcacaagct ggttcacgaa 240
atgctcacta tcgaggagtt tgaggacggg tgggcagcgt tgcttgagaa gtattcactg 300
aagaataaca catacctgat gcaaatttac aagacaagac agaaatgggc caagccatac 360
tttgcaggga aattctgtgc gaggcaaacc agcaacggga ggagtgagag cgcaaatac 420
atgttgaaat 430

<210> 9336
 <211> 393
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-B4

<400> 9336

gccataggat caggggactg gttcaagacc atcatcagca ggaagaagtc gaaccggggc 60
 aagtcaaagc acgcacaggt tgctgcacaa cgcaatggag ccaacctgcc gcatcacaag 120
 ccgagcaacg ctccatcttc cagcatcgac cctcaagaca ccgcagcact ggaagactgg 180
 gcaacgaccc ggattcaaaa cgcgtttcag cgccacaaag caacgaggac gtcctgttgc 240
 ctgaagcgac ttcaaccact gagcattgtt gggcacagca atcgagttac cagccagacc 300
 agtgccacac tgaactccat aaattcgttc cacaagtcta aggctgagcc tacacaacgg 360
 cgtgccttca tcgtccccga tgggctcaac acg 393

<210> 9337
 <211> 383
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-B5

<400> 9337

ccgggcgagc atgcatagag agtacgcgga tggctcttgc ccgtgtcaag acatactggg 60
 cagagatgaa ggccaccgat gttgcatccc cagattcgga cggaagctga gtacctatcg 120
 agcaatattt tcaggaagtt ctgcatggcg ctcgtttaat agagacgcag tgcttgaagg 180
 atattatgtt cgaataacat gtattattgt gaaacaatgt ttcgatgtaa tataaaagct 240
 ttttatactt gtgccttcaa gaattaaaat acctcctgtg cggacgttaa tgtatatgtg 300
 tatataaccc gactgatggc agtcttcggc ttcagccccc acgcatataa tgccgggggt 360
 gtatggcaaa atgtgcattt tca 383

<210> 9338
 <211> 464
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB29-002-Q1-E1-B6

<400> 9338

gggtggacta cttgattcgc tacaagtggg tgcctgcct cgagttcagc aaggttggct 60
tcgtcttcg tgagcacaac agctccccg ggtactacga cggtcgatac tggacaatgt 120
ggaagctgcc tatgttcggg tgcaccgacg ccacacaggt gctcaacgag gtggaggagg 180
tcaagaagga gtaccctgat gcctatgtcc gcgtcatcgg cttcgacaac atgcgccagg 240
tgcaatgct cagcttcatt gccttcaggc caccaggctg cgaggaatcc ggcaaggcct 300
aaagtgcaag ttgaagtaac cgatatacat gtcattgttag tcacatttgt cggcggctct 360
gctttctcag ttttacttct cgttctactc atatgtgaat atatgagcat atgtatgtaa 420
gcacttacca atgtaggctg angaggatgc atatgagaga tata 464

<210> 9339
<211> 312
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-B7

<400> 9339

cccgggccga caccttccca gaacaatcca tcgacttttt cggtgctctg cgtgctcggg 60
tgtacgacga cgacgtgcgc acgtgggtga cctctaccgg tatcgagaac attgtgaaca 120
agctggggaa ctgcggggac ggaccattga cctttgagca gccaaagatg acagtggaga 180
agctgctaca gtaccggcac atgctcgtcc attagcacga caatcgtaag cgtgtgcatc 240
ttgctgacac ctacatgagc caggcagctc tgggtgatgc gaaccaggat gcaatgtgga 300
ctggtgactt ct 312

<210> 9340
<211> 443
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-C1

<400> 9340

ctctacattt cacacatcca ggtgaaccaa gcccaaaagc agaggcgccg tacataccgt 60
gctcatggac gdatcaatcc ttacatgtcc aaccttgcc acattgagct gatcttgtca 120
gagaaggaag agccagtga gaaggaggct gacaacgtcg tcgcaccaag gaaagctatc 180
taagctaacg gagtggctgc attcgtccaa gaatcttagt tgtagttctt ctcaagtacc 240
tttgttggca gtgtttgttg cctccttgat gtttttgta ccaacatgga gtaaggattt 300
gttaaggttg atgttatcct tgtgattgag agtgggtcctt atatgctaaa acagtttcag 360
atatttgagc agtagccac cagaacttat ttctcagaga tgctggacct ttccggctgt 420
tcgagtatta tatccacttt ttg 443

<210> 9341
<211> 421
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-C4
<400> 9341

cgggtcgacc tgttgggtact ggagaagggt ctactaagct cgtacatgat gttgactgcc 60
ccatggattt cgacttttca ccttatgtga gtgctaattg aggagtcgaa caaaagtatg 120
acttatatgg agtcattcat cataggcagt atggcccaaa aggtgggcac tattggtgct 180
tcaccaagta taatggagaa tggtagcaga tcaatgacga acgggttaca tctatcacta 240
aggaggggtg agaaaagaaa acaaagaaag ttatatcttt ttctataaaa tgaaaatggg 300
agaacattct gaaccacatg gcgagcgtgc aactgaagac gacatcccaa gacggacgga 360
cgctgatccc ttacttttca ggccccacc tgatgaagat acccccaggc tatctgataa 420
g 421

<210> 9342
<211> 298
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-C5
<400> 9342

agacgacaga aggggagagg aacatcaggt tttagcatcg cgatttcctt agaagcgttg 60

cgcgagagaaa tctcgtcggg ttgttccccg aattccagcg caaagatgcc gcgcattccc 120
atgatcagat tccccaagag gcattctaaa gtcccatccc caccagcggc gcagcctgca 180
gatcagcagc cgaccctcat gtcccgattg ggagctaaag tagaggcacc atcttctgga 240
gagaaaaaga attaccgggt cagatcagat gtgccttccg caccttctca taatgctg 298

<210> 9343

<211> 480

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-C6

<400> 9343

acggtcagga cttccccggg ggcctcctac ggcaccgaca agatccccga caggagatc 60
ctcaagctcg tgaaggagaa ctttgacttc aggcttggga tgatcagcat caacctggac 120
ttgaagaaag gtggaaacag gttcatcaag accgctgctt atggtcactt tggccgcgat 180
gatgccgact tcacctggga ggtggtgaag cccctcaagt tgcacaaggc atctgcctaa 240
gaacaagaaa tcacattggg gttattcttg gtctgctgcc tatcaagttc gacaaaggcg 300
ggatcctttt gtccttggga agtaagaaga agcattcgac atcaccgca cgtgctacac 360
tggtcgtgcc gtctagtcat cagtgcctaa ttttcttact ggtgtatcat ttcatatatt 420
tttctttttc tttttgagtg tgctgaaact gctgagtgat gtgcaatttg ctctgtcact 480

<210> 9344

<211> 462

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-C8

<400> 9344

ttccggggcg accaggggtg ccaagaccga tccaacgcct cgtccgacgg cgctgccggc 60
cggcgatgga tatggagagg agctcgggtc ttccttgtgt atattagggc agcagtagtt 120
ttagtttgtc ttggcttcat gccgtggtct ggcgttatgc cgtggggatg caaaccactg 180
gagctctcga gcggcgtctg gtgggtggcct ccgtcgtttt ctttcttgcc accatgggtg 240
tggaagtgg aagacgccg atctggcaag atccccctga ataagctcgt tctggtgttg 300

tgggtgttccc tgatctggag ggcattccaac tgctactgct tgttttctca ggctaccatg 360
 gtgggtggatg agaagcagga tagttgcaga atcctgaagt ttataggctg agttcgagca 420
 tatcagcaga ggtccctttg gtggagcgac gggcgccatc ga 462

<210> 9345
 <211> 457
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-C9

<400> 9345

ggggtggacat cgacatcgcc aaaaagcata atgctgggac aaacaaagct gctcatagca 60
 ccacatcgct caatacaaag aggcttgatg atgatacaga gaatcttgct catgagcgtg 120
 tgccgtcaga cctgaagaag agcattatgc aggctagaac ggacaagaag ctacacacagg 180
 cacagcttgc acagctgatc aatgagaagc cacaagtcac ccaggagtac gagtcaggca 240
 aggctatccc aaaccaacag atcatcggca agctggaaag ggctcttggc acaaagctgc 300
 gaggcaagaa gtgaagctgc gtgcatctga caggagtcga gtctttcaag agaggagctt 360
 ggctgggcaa gtttaccgct aaataaagct tgtctactaa atcatgcgac ttaagaaaac 420
 cctggagttt ggtatttcgc tttggtttgg gtgaatg 457

<210> 9346
 <211> 385
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D2

<400> 9346

ggggtggccga ccgtgaacct gaagggggtg gacacctccg ccgtcctcgc cgacgcctcc 60
 agcaccgtcg caaccatcat cggcaagccg gagaactatg tgatggttgt tctcaagggc 120
 tcagtgccca tggcggttcgg aggtaccag gagcctgcag cctacgggtga gctgggtttcc 180
 atcggagggc tgaacctga tgtgaacaag aagctgagtg ccggcattgc ttccatcctg 240
 gagtcaaagc tgtccatccc caagtcccgc ttctacctca agttccatga ttcaaagcgc 300
 tcggactttg ggtggaacgg atcgaccttt tagacgcctc atatggcgtg gagtccgtga 360

tgaacttcac agttcctagt attct

385

<210> 9347

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D8

<400> 9347

gggtcgacgg caagatttat gatgtgaccg cgtatttga tgaccatcct gggggtgctg 60
atgttctgct tgccgtgact ggtatggatg gcaccgacga atttgacgat gcgggccaca 120
gcatggatgc caaggcgta atgaacgatt acttcattgg ggagttggac ttggacgaag 180
cacctgacat gcctgagatg gaggttttca ggaaagagca ggacaaggac ttcgccagca 240
agctggtgga ttacgctgtg cagtactggg ccattccggt agcagcagcc gggatatcag 300
ccgtggttgc catattgtat gcacggagga agtgatgact ggctatacgt tgattgaaga 360
accatttttg ggtaacacac acatttatag cctgttatgg atggagaaat tatgtacttc 420
ggtccaa 427

<210> 9348

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D9

<400> 9348

cactaaccat cagatctaca agcttgagg tattgacaag cgtgtgatcg agaggttcga 60
gaaggaagcc gctgagatga acaagcggtc gttcaagtac gcctgggtgc ttgacaagct 120
gaaggccgag cgtgagaggg gtatcaccat tgatattgcc ctgtggaagt tcgagaccac 180
caagtactac tgcaccgtca ttgatgcccc tggtcaccgt gacttcatca agaacatgat 240
tactggtacc tcccaggctg actgtgctgt gctcatcatt gactccacca ctggtggttt 300
tgaggctggt atctccaagg atggccagac ccgtgagcac gccctccttg ctttactct 360
tggagtgaag cagatgatct gctgctgcaa caagatggat gccaccactc ctaagtactc 420
gaaggctcgt tatgaggaaa 440

<210> 9349
 <211> 197
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E10

<400> 9349

accttcacag gacaatctat ctactttttc ggtgctctgc gtgctcgggt gtacgacgac 60
 gatgtgcgca agtgggtgac gtctaccggt atcgagaaca ttggcaagag gcttgtgatt 120
 tcgcggggagc gatcagtcac ctttgagcat ctatagtcga caggctagaa actgctacag 180
 tagtggcata tgcacgt 197

<210> 9350
 <211> 420
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E5

<400> 9350

gggtcgacag acgacagaag gggaccaccg ctcccagcaa cggaaccaac aaatcccaag 60
 ctaatctcgt ctccgatcga ctcgaggctt gtcgaatcct ccttccccac cgcctcaaga 120
 tgcagatctt tgtgaagaca ctgacgggca agaccatcac ccttgagggtg gagtcgtctg 180
 acaccatcga caatgtcaag gccaaagatcc aggacaagga gggcattccc cctgaccagc 240
 agcgtctcat ctttgtctggc aagcagctgg aggatggccg aaccctcgct gactacaaca 300
 tccagaagga gtccaccccc caccttgctc tgcgtctgcy tggtggcatg cagatcttcg 360
 tgaaaaacct caccgggcaa gaacatcact cctggagggtt gagagctctg acaacatcga 420

<210> 9351
 <211> 348
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E8

<400> 9351

ccgactagat tgtcaaacag gggcccgtag ctccacacac aatgttgccc tttgcaacgt 60

tcattgggaat cctacagcac tatgtccgta accgcgctag gccagaacga agcatctcca 120
 tggggccatca cagataggat gtcattggag ttttgtgttg acttcattcc tgaccttaag 180
 aagatatagt ctccctaaat cgtggtatga agggagactg actggaaacg gcacgcttgg 240
 tggggactca tcaatatgca cggaccgcta ttcttgatcg catccagaca agacagttct 300
 acacaactct aacttggcga ccccatatct ccattgccac aatatcag 348

<210> 9352
 <211> 420
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-F1

<400> 9352

ggtcgggaata ccgggtcgac tccttcaagg aagaggctga tgagggactt caagcggctg 60
 atgcaggacc ctctgcggg cataagcggg gcgccgcagg acaacaacat aatgctgtgg 120
 aatgctgtga tttttggccc tgacgatagc ccctgggacg gaggtacgtt taagctgact 180
 ctccagttaa atgaagaata tcctaataag ccaccaacag ttcggtttat ttctcggatg 240
 tttcaccta acatttatgc tgatggaagc atatgcttag atatcctaca gaatcagtgg 300
 agcccaatat atgatgtagc tgctatacgt acatctatcc aatcgctgct gtgtgacct 360
 aaccgaatt cgcctgctaa ctcagaagct gcccgcatgt tcagtgagaa caagcgagag 420

<210> 9353
 <211> 191
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-F6

<400> 9353

gatagctcac ccactaagct cgaagctttc cctgatctgg atgatcgccg tcaccatgct 60
 tctaattgtt cgtcgctgtc atattgatcg ggacatgtca tcgaaggggt ggcttgcaaa 120
 tttggttcga gtgagtttgt tcacattatc gtcagtgtt gaagttacgc gactgggtgc 180
 attcgaccat g 191

<210> 9354

<211> 350
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-F7

<400> 9354

ggtcgccaaa gttcgtacag agaggaccat tcctgatgta cagcctggat gtattgttca 60
 aatgagagtg caagttcctg agaacaagcg acgtgagtct acattgaagg gcatcgatcat 120
 agcacggcgc aatgctggga tcgctacgac tttcagattg cgtagattac tagctggcgt 180
 tggcgttgag tctgtctttc cactgtactc gccaaatatt aaagaaatta agatcttaga 240
 caggtagaga gtcaggatag caaagctgta ttacctgatg gacagaatga ttgcactgat 300
 gaaatgagac accatcagct tggttcttgc cattttgttt ctgatgtgga 350

<210> 9355
 <211> 440
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-G1

<400> 9355

ggcgaaggcg agagaagggg acagcagcgg gcgagacaga gagaggcgag gagacgacag 60
 caccgccgcc atgagcgccc tcaagttctg cagcaaattgc gacaacatgc tgtacccgca 120
 ggaggacaag gagatgcaca tcttcttcta cgctgctcg aattgccagc accaggagat 180
 tgctactgat tcttgtgtgt acaaaagggg tcttcggaaa tctgctgatg aacctaaaga 240
 caccctaaaa gacgcagctg ctgatgcgtc tctgccacgc accagaagtg ttaaatgcta 300
 caactgtagc tatccagaag ctgcttattt ccaggccccg acgacaggag aggttggcct 360
 gacgctatac ttcatctgct gcagccctac ctgtggccac aggtgggtgg actgactgac 420
 tgacaagggg gaaccctcca 440

<210> 9356
 <211> 421
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-G11

<400> 9356

catcgagtag accctgttat tgtgagaatt cttaattcaa gagttatagg gagggactta 60
tgtcaccaca aacagaaact aaagcaggtg ttggatttaa agctgggtgtt aaagattata 120
aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatcttg gcagcattcc 180
gagtaagtcc tcagcctggg gttccgcccc aagaagcagg ggctgcagta gctgccgaat 240
cttctactgg tacatggaca actgtttgga ctgatggact taccagtctt gatcgttaca 300
aaggacgatg ctatcacatc gagcctgttg ctggggaaga cagccaatgg atctgttatg 360
tagcttatcc attagacctt tttgaagagg gttccgttac taacatgttt acttccattg 420
t 421

<210> 9357

<211> 297

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-G7

<400> 9357

ggtggccctg tagagctgaa aagggccgct gaagacagga ttactatcag atggactttc 60
aagaaattca acgaaggcat catgcgagac atactggacc cgctgctgga agatcgcgctg 120
gacgaagacg tgttggaaga agcttcagac tgtgggggttc cagtgcgacc ctctcacaca 180
ggacgaccgt ctcacggtaa ccgaggtcct ggagcagctg tgggacatca ggaaaggcga 240
tcggatgcgc ttcaggatcg catccaatca tttgctcatt taatcacgac cagtgca 297

<210> 9358

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-G9

<400> 9358

gccatcatcg aaaataaaga agaggattac gggatgttcg tctggccatg cagcgatcatc 60
ctcgcggaat acgtgtggca gcagaggccg cgcttctcct gctccagagt tgctcgagctt 120
gggtgcaggaa cctcgtctgcc aggtatagta gctgcaaaag ttggagcagg tggtacgctg 180

acagacattg cacataatac agaagtgctg gacaacatca agcaagtatg cggcctcaat 240
aatgtgaact gtattaggac ttacttgggg agattgggat gaacctgttc ttgatttgca 300
ccctgatatt attctcggag ccgatgtgct ttatgattca gcaaaatttg atgatctctt 360
cgcaatgggt accttcctgc tgggaaattc tctgtggca gtgttcatca ccacataaca 420
gaatcgcagt ggtcatcact tga 443

<210> 9359
<211> 365
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-H11
<400> 9359

ccggaaatcg ccggtcgaca ccttccaacg acaatccatc gactttttcg gtgctctgcg 60
tgctcgggtg tacgacgacg aggtgcgcaa gtgggtgacc tctaccggta tcgagaacat 120
tggcaagaag ctggtgaact cgcgggacgg accagtgacc tttgtgcaac caaagctgac 180
agtggagaag ctgctagagt acgggcacat gctcgtccat gagcaggaca atgtcaagcg 240
tgtgcagctt gctgacactt acatgagcca ggcagctctg ggtgatgcta accagtatgc 300
gcataagact ggtaccttct acggttagaa cattctccat acacaatcac catctcttgc 360
tgcatt 365

<210> 9360
<211> 375
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-H2
<400> 9360

cgggtcgacc gccgcggcta acaggtgcta cgcaaccgtc gcgccccgtg cccgctcgtc 60
caccatcgtc gccagcctcg gcacccccgc gccctccaac tctcctcct tccgccccaa 120
gctcatcagg aacaccccag tccaggccgc gcccgctgca cccgcattga tggacgccgc 180
cgtggagcgc ctcaagaccg ggttcgagaa gttcaagacc gaggtctacg acaagaagcc 240
cgattttctt gagccccctca aggcgggcca ggcgccaag tacatggtgt tcgcgtgcgc 300

cgactcgcgt gtgtgccct cggtcaccct gggcctggag cccggcgagg ccttcacat 360
ccgcaacatc gccaa 375

<210> 9361
<211> 325
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-H4

<400> 9361

gacctgatcc gctcaaaatg ggtgccttgc ctcgagttca gcaaggttgg gttaaccacc 60
gttcagcaca aggcaccccc tgggtactac gatggccggt actggacaat gtggaagctg 120
cctatgttcg ggtgcaccga cgccacacag gtgatcaacg acgtggaaga ggtcaacaag 180
gagtaccctg acgcgtacgt ccgcatcatc ggattcgaca acatgcgcca cgtgcagtgc 240
gtcagcttca tcgccttcac gccaccgggc tgctacgagt ccggcaaggc cgacacagct 300
cactcatcac cggccacata taaag 325

<210> 9362
<211> 391
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-H6

<400> 9362

ggtcgcctac ctgatccgct ccaaattgggt gccttgccctc gagttcagca aggttggggt 60
catcttccgt gagcacaacg catcccttgg gtactacgat ggccggtact ggacaatgtg 120
gaagctgcct atgttcgggt gcaccgacgc cacacaggtg atcaacgagg tggaagaggt 180
caagaaggag taccctgacg cgtacgtccg catcatcggc ttcgacaaca tgcgccaggt 240
gcactgcgtc agcatcatcg ccttcaagcc accgtgctgc gaggagtccg gcaacgccta 300
aacagctcac tcaccacgga ccacatataa agtgccattg ctgttttgtc acctctgaca 360
ttgcctttgg gttttccttc tccattttat c 391

<210> 9363
<211> 438
<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-A10

<400> 9363

```
aggtaccagt caggaattcc cgggctcgac tccaagataa agctggtgaa ttgccgaaat   60
tagtagagga tcttcgccag acgtcgatta gcacagggcc tcgaggtgcc tttaggatgg  120
cgcaagggat ccaagctctc cttgggggttg gcggggagtg gctaaatgac ttctcgaaga  180
cagctaacac gtcagaagga attccagctc agatgcgtct tggtttgctt tcccctcttt  240
acctcagaag gctttttgaa cgcattgggtg caacttatat caagctaggt cagttcatag  300
cgtctgcacc aacttccttt cctgcagaat atgttgaaga attccagaac tgttttgacc  360
gagcaccacc tgttccttat agcgagatcg agtcgatatt gcgtgaggag ttgcagcggc  420
cattggatag tgtctatg                                     438
```

<210> 9364

<211> 352

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-A11

<400> 9364

```
aattcccggc tcgacttatc atctaagggt tgggattgcc tctgtagcct ctcggccctc   60
agataaccat gtatggtata tgtggatgat atggccaatg gcatggctat caatggtact  120
agcatgggtt tatggatcat ctgcgtttgt cgtcgaaagt ctcaagctga agaagatcat  180
gatgcaaaca tggctgatac caagatacaa cttccagtac agcctgatta gggagagggg  240
atccatcaat acgttaattg agcaggcaat atcagatgcg gatcaaagag ggggtcaaagt  300
gctcagtctt ggacttttca gtcaggaaag acgactcaat ggaagtgggtg aa          352
```

<210> 9365

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-A12

<400> 9365

ggtaccagtc aggaattccc gggtcgacgg tgccggttct cgggggtgcc tcaggggacc 60
 aaagcagggg gttctgctcc gtccggcgct tcgcaggaga tagcgctgcc gtcgaggagc 120
 cggagaatgg acttgccgca ggcgatctgc aggtatctgt gcaactcgat gttgtggtac 180
 atacagtagg acggccgctt ctagacatgt gtgttctaca gaattgtcta gtagtggtac 240
 gtagtaccat gaatatttag gatgctctgg ttttgaagat tacattatat tttccgcaaa 300
 aaaaaattac attatatcta tatatatatg caacaggga ggtaagcaga taacaaccat 360
 tcaggatgct ggcctacga tcatgtgatc tttctccttg attaaagaaa atttagtgga 420
 tatcatcgtg attctcact 439

<210> 9366
 <211> 378
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-A2

<400> 9366

ggtccggatt cacgggtcga catggcgacg gtcagaagag agaacctgag ggcctcttc 60
 atgtacatag ataagttgcc cacggtgatc cccgaatctg ttttcgaggt atacgattcc 120
 cacgtaaagt gaccctgtgc tcggctcggc gctgcgcaa ttgttcatca gttgggtact 180
 gctagtgtcg tagacattac caattgttcg tcagtggggg gctgctagtg ctgtaggcat 240
 tgccggttgt tcatctgtgt getgctgcta atgtttaga catttctgga gccccggg 300
 ctggctgcct cgagcttatg aacgctccga gcagttcgcc ggggaagctc tgtatgtatg 360
 tgacgtactc ctatatat 378

<210> 9367
 <211> 410
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-A6

<400> 9367

gggtcgacgc tttttttttt tttttttttt tttttttttt ggataattgt ttgtcactca 60
 tagatgcctt gataataatt gttttattac cattaacgga cacattaata gctagtgcac 120

agaatacaga ttcttggtac catcaatgct aatctgcccc cttaaacttg aaaggcaaatt 180
agctaattcc aacagcatca gaggagaagg ggcagctcaa acttttaaatt gcgaaggcgc 240
taccggcgat gttctttgtc gagggcatac cggcagtaac atcttcttcg atgccacatt 300
cattcttgcc ccttatgata ttgaagtacc cgtcatcgcc ccagcctctg ttccactgat 360
ttgcaagaag ccagtaatcc tcgccagcat cactaatttc ccaaccaatc 410

<210> 9368
<211> 410
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB29-001-Q1-E1-A9

<400> 9368

attccccggt cgacgatccg agaaccctca acaagatcct gtacatgagg ccaccggcga 60
acattgtgtc ccacaacgag ctcatctcga tgtgggagag gaaagcgggc aggactttcc 120
agatcgtgcg catcccgag gcggtctcc tcaagttgat caaggaggcg gctttccctc 180
tgaacatatt gctgtccctc gcgctctcca tcttcacgg gggcgtagag gccaaacttg 240
agattgaagc atcctttggc gtcgaggcca ccgagctgta ccccgaccta aagtacacca 300
ctatcgacga gtatctcgag caccttcact gacagctttt ggctggctgg aatggcacca 360
tccacagtcg gcatcaacaa tcangatgat gaacagggtgg atcctccaaa 410

<210> 9369
<211> 376
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-B1

<400> 9369

gggtcgacga ccaactggcca tcagatctac aagcttgag gtattgacaa gcgtgtgata 60
gagaggttcg agaacgaagc cgccgagatg aacaagaggt ctttcaagta cgctgggtg 120
cttgacaagc tgaaggccga gcgtgagagg ggtatcacca ttgatattgc cctgtggaag 180
ttcgagacca ccgagtacta ctgcaccgtc attgatgctc ctggtcaccg tgacttcata 240
aagaacatga ttactggtac ctcccaggct gactgtgctg tgctcatcat tgactccacc 300

actggtgggtt ttgaggctgg tatctccaag gatggccaga cccgtgagca tgccttcctt 360
gctttcactc ttggag 376

<210> 9370
<211> 426
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-B10

<400> 9370

aattcccggc tcgacttttc cactaacaac cccaaaaaac ccaactctgc cttacgtaaa 60
gttgccagag tacgattaac ctctggattt gaaatcactg cttatatacc tggatttggc 120
cataatttac aagaacattc tgtactatta gtaagaggag gaaggggttaa ggattttacc 180
ggtgtgagat atcg cattat tcgaggaacc ctagatgctg tcgcagtaaa gaatcg tcaa 240
caagggcggtt ctaa atatgg ggtcaaaaag ccaaaagaat aagt gatttt agcccttata 300
aaaagaaaac ggattcttga acctctttca cgc tcatgtc acgtcgaggt actgcagaac 360
aaagaactgc aaaatccgat ccaatttttc gtaatcgatt agttaacatg gtggttaacc 420
gtatta 426

<210> 9371
<211> 437
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-B12

<400> 9371

gtaccagtca agaattcccg gctcgaccag gctgagaaaa tgggacttga ctacatggat 60
gttgaaagtc tcaagaagat gaacaagaac aagaagcttg ttaagaagct agccaagaag 120
taccatgctt tcttggcatc agaggccata atcaagcaga tccctcgtct ccttggccct 180
ggtcttaaca aggcaggcaa gtttcccact ctgggttagtc accaggaatc tcttgaagcc 240
aagggtcaacg agacaaaagc tacagtcaag ttccagctaa agaaggttct ttgcatgggt 300
gttgctgtag gcaacttgtc gatggacgag aagcagatcc aacaaaacat ccaaatgagc 360
gtcaacttcc ttgtgtccct cctgaagaag aattggcaga atgtgaggtg cctgtacgtg 420

aagagcacca tggggaa

437

<210> 9372

<211> 419

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB29-001-Q1-E1-B2

<400> 9372

gtccggagtt cacgggtcga caccttccca ggacaatcca tcgacttttt cgggtgctctg 60
cgtgctcggg tgtacgacga cgaggtgcgc aagtgggtga cctctaccgg tatcgagaac 120
attggcaaga ggctggtgaa ctgcggggac ggacccgtga cctttgagca gccaaagatg 180
acagtggaga agctgctaga gtacgggcac atgcttgtcc aggagcagga caatgtcaag 240
cgtgtgcagc ttgctgacac ctacatgagc caggcagctc tgggtgatgc taaccaggat 300
gcgatgaaga ctggttcctt ctacggttag aacattctcc atacacaccc accatctctt 360
gctgcatang angaggtaaa cgggcacagc aagggtacttt gcctgtaccg gcaggatgc 419

<210> 9373

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-B6

<400> 9373

gggtcgactt tcgacgtgat aaggcggccg gaaatcgact cgggagcaat gtagcctgtg 60
gtcctcgcga catgagatgt gttctggttg gatccacctc ggtttagtaa ctttgccaac 120
ccaaagtcag tgatcttagg ctcaaagttt tgggtccaaga gtatattctc gggtttcaca 180
tcgcaatgga tgaccattc taggcactca tgggtgaagat aggccaaccc ttctgcaaca 240
cctaatacaa tattgaaccg ttgcttcag tccagcaaga tgatgctttt atcaccgaac 300
aaaatgctag caagtgagcc gttctcgaca tattcacaaa ccaacagcct gtgagatcct 360
tccgaacaaa acccccatat tctcaccaga ttcatgtggt aaatcctagc aatcacactc 420
agctcggct 429

<210> 9374
 <211> 428
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB29-001-Q1-E1-B9

 <400> 9374

```

gtaccgatca ggaattcccg gctcgactca cggttcattt ccaaggagaa gaaggcattg   60
atgccggtgg gctcacaaga gagtgggtatc agttactatc acgagtgatt tttgacaagg  120
gtgcccttct attcacgact gttggaaatg acttgacatt tcaaccaaac cctaactctg  180
tgtatcagac tgaacacctc tcatatttca aatttgttgg acgagtgggt ggaaaagcgc  240
tctttgatgc ccaacttttg gatgtccatt tcaactagatc tttctacaag cacatacttg  300
gtgccaaggt tacttaccat gatattgaag ccattgatcc tgcttactac agaaacctta  360
agtggatgct tgagaatgac ataagtgatg tcctggactt cacatttagc atggatgcag  420
atgaagag                                         428
  
```

<210> 9375
 <211> 439
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB29-001-Q1-E1-C10

 <400> 9375

```

gtaccgatca cgaattcccg gctcgacaaa ctaatcaaatt ctatcaactg ttggtaccca   60
ggatgcctgc attttgcaaa tgtcagtgga tcctgaagcc agaaacaagc aagagctaac  120
agctcatgtt ttatcacctc aacatgtata ggagaatttg gcagcaacaa ctgatggaca  180
gattgatgag acaatacgtc ttaaaactat cagaacccgc agtccagtag aggctgcgcc  240
ggttaacagt gcaagtcaaa aggttaatga ggcaccgaaa ccaaagatg aaatgacgat  300
tggagtgggt caagagcaca ggaaggggtg gaagacagag tcttgtcaag gagtaaaaca  360
aggcatgggt gatgtagatg ttgtcacgga ggaatcatca ccagtgcgca cgctaaaatt  420
gggaaatgca tgcagcgca                                         439
  
```

<210> 9376

<211> 440
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB29-001-Q1-E1-C12

 <400> 9376

```

aggtaccgat caggaattcc cgggtcgact tccaccaaag caaaatccat catctcatcg   60
aaagacggga cacctttgcc tctatcaagt ggtatcagat ttccagggtg ctcggtgaga  120
ttttacagtt tttcgtagtt tagatcgagt ctgttcttca tacctatagt ccacgaaaaa  180
gccaagaaaa attaggggtta gttcatccca tccgaaccaa tctgagcctt gcataatctt  240
ttctgtattt gcttggttga atttgcggtt gcatcgctgt gttcagttgc tggctcttagc  300
gtctagtctt ttagagtttc gagttctgtt cacaagttgt cacgccgtcg ccgcacgac  360
atcatcgccc ctgccatcta cgaccaccgc tccgaatccg tatccatata ccaccaccag  420
tccgtgtcca tataaccacca                                         440
  
```

<210> 9377
 <211> 476
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB29-001-Q1-E1-C2

 <400> 9377

```

gtccggaatt cacgggtcga cgaggccttc ctcgcaaagt atgatgtgaa gccgaacaat   60
gccattcttg ccgaggacaa gcacttgccc atgtacgatg agttgtccag caaggacaat  120
gttgaatata ttgctggagg agccacgcag aactctatca gggttgcccc atggatgctt  180
caaactcctg gtgcaacaag ttacatgggt tgcattggaa aggacaagta tggtgaggag  240
atgaagagcg ccgctaaagc tgcaggagtt actgctcatt actatgagga tgaggctgct  300
cctacaggca catgtgctgt ctgtgttggt ggtggcgaaa ggtcattgat tgcaaactta  360
tctgctgcga actgctacan atctgagcat ctaaagaggc canagaactg ggcactagtt  420
tgagaaagcg agatacatct acattgctgg ctttttcctt acggtgtccc ctgaat     476
  
```

<210> 9378
 <211> 475

<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C3

<400> 9378

gtccggagtt atcgggtcga cgagccctgc aaaataggta gaggtgaaaa agctggacaa 60
ctgggcactc tttgtagggg ctgatgtgag gagcccgccg ttttcttgct tgagcccaga 120
gaagtgggga ggaacgagca accgcctgta ctatgcccat tactctcagc cttggagcgt 180
acatggcttt ggtgacgcgg cagatgctgt gtgggatcct tccaccgacc ctgatcttgt 240
gtacaagaga aactggtacg gccagcttca ggccttctgg gtgtatccaa gcatgttcta 300
ctctgatggc cagtgatagt cgatgggcaa ctatggcttg ctgcactacc agcttctttt 360
ggaaaaacta tctcttccaa cagagactta tgcagctgaa gaaaagaagt gattttcatg 420
gtggcagtcg tactggagct tctgcagtta gtttcatcct tcagttttta gaaca 475

<210> 9379
<211> 452
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB29-001-Q1-E1-C4

<400> 9379

ggtcgacgag cttgtcattc taggcactgt atttctacac aatatgtacc cctttgagag 60
gttcatggga gtcctaaaga aatatgtccg taaccgtgct aggccagaag gaagcatctc 120
catgggccat caaactgagg atgtcatcgg gttttgtgtt gacttcattc ctggccttaa 180
gaagataggt ttccctaaat cgcggtatga ggggtgactg gctggaaaag gcacgcttgg 240
aagggactca ataatatgca gggacggata ttcttggctt caagcacgct acacagttct 300
atagaactct accttgggtga ccccgatatgt cgatgaacac aagaacagtc tgcgctccaa 360
acaccgggag tagtgcgacg actggattac atgtgaacac atcaggactt tcagcagttg 420
gttggaaca cgtatcanag gtgacaacac tg 452

<210> 9380
<211> 444
<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C7

<400> 9380

gggtcgacgc cttcatggct gtaaggcctc ttcccaacat gtttggctga gcattgggtg 60
ggaagtccat accctttctg tgtggatttt attgaattcc aggagcaaca tatgaagttt 120
caggatttag ttgtaactat taatgtgaac ctggcccctc aatcctgtat ggcgccact 180
gtttttgcaa aatcagcatg tgatatgttt gttttcaagc ttactcgatc actgcaaaga 240
tttctattta ttggaattag ggaacataca catgttttct ggctgaaaca cagcctcctc 300
aaatgatcat agcactgtct ctacaggctt ccatctgtat tatggttatg ttagtactac 360
caaaactacga ataaaacaga tgatctgctg gtgaaaaaca tggggccgct ctacaggatt 420
caagcttacg tacgtttgca tgca 444

<210> 9381

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-C9

<400> 9381

aggtaccgag ttaggaattc cgggctcgac tgatggatca taaaagcggg actgaacttg 60
tgctcactta tgaggataag gatggcgatt ggatgcttgt tggatgatgtt ccatggcgaa 120
tgttcacaga cagctgtagg aggatgagga tcatgaaggg gtcagatgca gtgggcctcg 180
ctccgagggc ggccgagaag agcaagaacc agaaatggca aaaaggatga acccggtctg 240
tttctgtga ttcgcatcgt cgtacgaggg cgatggactt catgtgtgat gagaaagga 300
tttacttata tataagtacg tgtattctct ttattatttc cttgtatgtt ggctcggaac 360
aagcatgtta ggttgtgtaa gttgatgtgt gtgtgtatct actactactg cactatttta 420
ctttgattcg cgtgtgt 437

<210> 9382

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D1

<400> 9382

gtccggaatt atcgggtcga cgaccactgg ccatctgata tacaagcttg gaggtattga 60
caagcgtgtg atcgagaggt ttgagaagga agccgctgag atgaacaaga ggtctttcaa 120
gtacgcctgg gtgcttgaca agctgaaggc cgagcgtgag aggggtatca ccattgatat 180
tgccctgtgg aagttcgaga ccaccaagta ctactgcacc gtcattgacg cccctgggtca 240
ccgtgacttc atcaagaaca tgattactgg tacctcccag gctgattgtg ctgtgctcat 300
cattgactct accactgggtg gttttgaggc tggatatctc aaggatggcc agaccctga 360
gcacgccctc cttgctttca ctcttgaggt gaagcagatg atctgctgct gcaacaagat 420
ggacgccacc actcccaagt actcaaa 447

<210> 9383

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D10

<400> 9383

ggtaccagtc aggaattccc ggctcgacgg caagatttat gatgtgaccg cgtatttgga 60
tgaccatcct gggggtgctg atgtgctgct tgccgtgact ggtatggatg gcaccgagga 120
atattgaagat gcggggccaca gcaaggatgc caaggagttg atgaaagatt acgtcattgg 180
ggagttggac ttggacgaaa cacctgacat gcctgagatg gaggttttca ggaaagagca 240
tgacaaggac ttcgccagca agctggcggc ttacgctgtg cagtactggg ccattccggt 300
aacagcagtt gggatatcag ccgtgcttgc tatattgtat gctcgaagga agtgatgatc 360
ggttatacgt tgattgaagg accatttttg ggtaaccaag acatttacag ctggttatgg 420
atggagagat tatgta 436

<210> 9384

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D11

<400> 9384

aattcccggc tgcactacct gatcagctcc aagtgggtgc cttgcctcga gttcagcaag 60
gttgggttca tcttccgtga gcacaacgca tcccctgggt actacgatgg ccggtactgg 120
acaatgtgga agctgcctat gttcggatgc accgacgcca cgcaggtgat caacgaggtg 180
gacgaggtca agaaggagta ccctgacgcc tatgtccgca tcatcggatt cgacaacatg 240
cgtcaggtgc agtgcgtcag cttcatcgcc ttcaagccac cgggctgcga ggagtccggc 300
aaggcctaaa cagctcactc accacaggcc acatataaag tgccattgca gttttgtcaa 360
ctctgacatt gctttgggtt ttccttctcc atttatcttt cgtatttgtt 410

<210> 9385

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D3

<400> 9385

gtccggagtt cacgggtcga caagctcatg gagaaagaga agaacgaggt cattgttgct 60
gacaactttt tcaactgggtc aaaagacaac ctgaagaagt ggatcggaca cccaagattt 120
gaactcatcc gtcacgatgt caccgaacca ctgctcgtgg aggttgacca aatctaccac 180
cttgcttgcc ctgcctcacc aatcttctac aagcacaacc ctgtcaagac catcaagacg 240
aatgtcattg gaaccttgaa catgcttgga cttgcaaaga gagttggagc tagaatattg 300
ttgacttcga cctctgaagt ttatggtgat ccccttgagc atcctcagac ggaggcgtac 360
tggggcaatg ttaacccaat tggagtcagg agctgctacg atgagggtaa gcgtgtagct 420
gagacactga tgttcgacta ccacaggcag ca 452

<210> 9386

<211> 404

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D4

<400> 9386

gtccggattt aacgggtcga cgagcaccgg gcactatgtg aatgctcctg atatggtcag 60

gtgccagatg aacttcaagc gtctttcgct gaccgacatc aagattgaca tcaagcgtat 120
ccctaagaag gcaactttga tcaaggccat ggaggaagca gatgtgaaaa ccaaatggga 180
gaacagctca tggggtaaga agcttgttgt ccagaagaga agagcatcgc tgaatgactt 240
tgacaggttc aaggatcatgt tggctaagat taagaggggt ggtgcatca ggcaagagct 300
tgccaagctc aagaaggagg ttgctgctta gattatctta gtggatggca tgttgagttt 360
tttgttccaa gttggatctg ctgatgttc cagtgttctt aaag 404

<210> 9387
<211> 438
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-D9

<400> 9387

ggtaccagtc aggaattccc ggctcgacga agtgattgtg gctgacgaga agaattggga 60
taacatggtg atcgcgtgcg agtcgccggt gctggtggag ttctgggcgc cgtggtgcgg 120
gccgtgccgg atgattgccc cggatgatcga cgaactggca aaggactacg tggggaagat 180
caagtgctgc aaggatgaaca cggacgactg cccaaacatc gcatccacct acggcatccg 240
gagcatcccc accgtgctca tgttcaagga cggcgagaag aaggagagcg tcatcggcgc 300
cgtcccgaag acaaccctct gcaccataat cgacaagtac atcggcagct aattaatcat 360
tcttaattag cgattaatcg aggacgcaca cacctttact gttctgttcg cgagacagca 420
tatatgtatg tatatgat 438

<210> 9388
<211> 442
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-E10

<400> 9388

aggtaccagt cacgaattcc cggctcgaca ccttcacaag acaatccatc gactttttcg 60
gtgctctgcg tgctcgggtg tacgacgacg aggtgcgcaa gtgggtgacc tctaccggta 120
tcgagaacat tggcaagaag ctggtgaact cgcgggacgg accagtgacc tttgagcagc 180

caaagatgac agtggagaag ctgctagagt acgggcacat gctcgtccag gagcaggaca 240
atgtcaagcg tgtgcagctt gctgacacct acatgagcca ggcagctctg ggtgatgcta 300
accaggatgc gatgaagact ggtaccttct acgggtagaa cattctccat acacacccac 360
catctcttgc tgcataggag gaggtaaagg ggcacagcaa ggtactttgc ctgtaccggc 420
aggatgcacc gaccagactg cg 442

<210> 9389
<211> 420
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-001-Q1-E1-E11
<400> 9389

aattcccggc tgcacgcgta cagcatcacc tggaatccta ggaaatctcc cggtagatat 60
gtttcagcac taagcttcac tgggttgcgac ttcgacatgt acgtgctaga gcatggcacg 120
aacaagacgg tgggtcagtg cactgctaca tgccctgtca aagatatcac ggatacggtg 180
gcttggcagt attgcaacgg tacaggatgt tgcttcacca acgtcgatgc cgagtttgct 240
acaggcatcg agataaagtt tgtccgccac aagattggac agctgaagtt ccaagcgaac 300
agcaaccgaa gctctatatg gcatacagtt gatgtaaccg ctgattccat tattatgtgg 360
ggatatcatcg ttaatgaaca tggccccttg caaaacagca cagattatgc atgtctcagc 420

<210> 9390
<211> 441
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-001-Q1-E1-E12
<400> 9390

aggtagctag tcaggaattc ccggctcgac ctagggggga catcatggac ggttctactt 60
gggaggaggg acgccaccac cgcaagtgcg tccttgcca acagtgcct ccccgggccc 120
aactccaacc ttaatgatct cctcgccgct ttctccaaga agggattaag cagcaccgac 180
atggttgctc tctcaggggg gcacaccatc ggccgggccc aatgccagaa ttaccgaaac 240
cggatctacg ccgacaccga catcgacggg accttcacgg cgtcgctgcg aggcgactgc 300

ccacaggggtg gtggcaacga cggcaacctc gcgcctctcg acgcgtcctc gcccgactac 360
 ttcgacaaca gctactttctc cggcctcctc agccatcggg ggctgctcca ctccgaccag 420
 gcgctgtacg acggcggctc c 441

<210> 9391
 <211> 482
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-001-Q1-E1-E2
 <400> 9391

gtccggattt agcgggtcga cgacctgac cgctccaaga gggtgccctg cctcgagttc 60
 agcaagggtg gcttcgtctt ccgtgagcac aacagctccc ccgggtacta cgacggtcga 120
 tactggacaa tgtggaagct gcctatgttc gggtgccaccg acgccacaca ggtgctcaac 180
 gaggtggagg aggtcaagaa ggagtacct gacgcctatg tccgcgtcat cggcttcgac 240
 aacctgcgcc aggtgcagtg cgtcagcttc atcgccttca ggccaccggg ttgcgaggag 300
 tccggcaagg cctaaactat gaggttgaaac aatggcctat ctcatatgaa gatcttttgt 360
 gaatttcact tttgtccacg acctctgttt gcacgactct gctttccgac cggagcatac 420
 cttttgttct aaatgatttt gtgtatgtac gtaagaacct atgtttctca acatgcatac 480
 at 482

<210> 9392
 <211> 464
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-001-Q1-E1-E3
 <400> 9392

ggtcgggatt cacgggtcga ccgttcattc ttagaaaatt gattattgaa tcaccattcc 60
 aatgttggcc atgcaaccca gcccatattt cgggtgcacc tttcaaccat tgtaaattg 120
 tgtatgtttt cctcgagcat acatcaatat atcattttga tctgacaaat gttatattcc 180
 tgttcacata attgtggaaa tccatccttt ggaaatcttg atgaattgtc gctgagttca 240
 tcagccacct cttgtcctc tccttggggtt aatgatgaac tcttgtaac agaaatcact 300

tcatagttca tttcccgaga atcttacagt gtcacccgt caaattgtgt cgcacctttt 360
 cttttcaagc atcctgagtc tgaggatatcc taacaccgat cagatctgaa tctcggtcag 420
 atatgatggt tggaacactt ttcaagagtc acaacattgg tctg 464

<210> 9393
 <211> 454
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-001-Q1-E1-E4
 <400> 9393

gtccggagtt cgcgggtcga cgacctgatc cgctccaaaa gggcgccttg cctcgagttc 60
 agcaagggttg ggttcattctt ccgtgagcac aacgcattccc ctgggtacta cgatggccgg 120
 tactggacaa tgtggaagct gcctatgttc gggcgcactg acgccacaca ggtgatcaac 180
 gaggtggaag aggtcaagaa ggagtaccct gacgcgtatg tccgcattcat cggattcgac 240
 aacatgcgtc aggtgcagtg cgtcaacttc atcgccttca agccaccggg ctgcgaggag 300
 tccggcaagg cctaaacagc tctctacca caggccacat ataaagtgcc attgcagttt 360
 tgtcaactct gacattgctt tgggttttcc ttctccattt atcgttctta tttgttctta 420
 aagatatgtg tatgtccatg ttcatgttcc aaca 454

<210> 9394
 <211> 467
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB29-001-Q1-E1-E5
 <400> 9394

accggtcagg acttcccggg tcgactacct gatccgtca aagtgggtgc cctgcctcga 60
 gttcagcaag gttggcttcg tctttcgtga gcacaacagc tccccgggt actacgacgg 120
 ccgatactgg acaatgtgga agctgcctat gttcgggtgc accgacgcca cgcagggtgct 180
 caacgaggtg gaggaggtca agaaggagta ccctgacgcc tatgtccgcy tcatcggctt 240
 cgacaacctg cgccaggtgc agtgcgtcag cttcatcgca ttcaggccac cgggttgcca 300
 ggagtcctggc aaggcctaaa ctacgagttg aagcaatggc ctatgtatga ttgtcttttg 360

tgaacttcac ttttgtccag gactctgctt tccgaccaga gcatatTTTT cgttcggat 420
gatctgtgtn tgtacgaaca taggttgtgg agcatgcata tggtaat 467

<210> 9395
<211> 441
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB29-001-Q1-E1-E6

<400> 9395

taccggtaag gatgttccgg gtcgactttt ccactatcaa acccaaaaaa cccaactctg 60
ccttacgtaa agttgccaaa gtacgattaa cctctggatt tgaaatcact gcttatatac 120
ctggtattgg ccataattta caagaacatt ctgtagtact agtaacagga ggaaggggta 180
aggatttacc cgggtgtgata tatcgcatTA ttcgaggaac cctagatgct gtcgcagtaa 240
acaatcgta acaacggcgt tctactgcgt tgtagattct tatccaagac ttgtatcatt 300
tgatgatgcc atgtgaatcg ctagaaacat gtgaagtgtA tggctaacc aataacgaaa 360
gtttcgtaat gggactggag cangctacca tgagacacaa gatcctcttt ctaaagagat 420
tcgattcgga actcttatat g 441

<210> 9396
<211> 437
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-E9

<400> 9396

ggtaacctatc aggaattcgc ggctcgaccg agaagacaac agaagggcat cgagtagacc 60
ctgttattgt gagaattctt aattcaagag ttatagggag ggacttatgt caccacaaac 120
agaaactaaa gcaggtgttg gatttaaagc tgggtgttaa gattataaat tgacttacta 180
caccacagag tatgaaacta aggatactga tatcttggca gcattccgag taagtctca 240
gcctgggggt cgcgccgaag aagcaggggc tgcagtagct gccgaatctt ctactggtaC 300
atggacaact gtttggactg atggacttac cagtcttgat cgttacaaag gacgatgcta 360

tcacatcgag cctgttgctg gggaagacag ccaatggatc tgttatgtag cttatccatt 420
agacctatatt gaagagg 437

<210> 9397
<211> 430
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F10

<400> 9397

aattcccggc tcgacttttt cggtactcct gccttgctcc ggttggtcac aacaagggcc 60
caagttagt acctccaacg gtatccagaa cattggcaag aagctgggtga actccccgga 120
cggacccctt acctttgggc aaccaaagat gacaattgag aagctgccag agtacaggca 180
catgcttggt caagaacacg gcaatgtcaa acccttttca accttctgac accctacatg 240
aaccaggcaa ctctgggtga tgccaaacag gatgcatga aaaacgggtc ctttcaaggt 300
tagaacattc tccatacaca accaccatct cctgctgcat aagatgaggt aaaagggcac 360
aacaaggtag tttgcctgta ccggcaagat gcaacgacca aaatgccaag aaattctatc 420
caaacagcgg 430

<210> 9398
<211> 367
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F2

<400> 9398

ggtcgggatt tagcgggtcg acgagctcac cgccgacaac cgggtctacc acaaggcctg 60
cttcagggtgc caccactgca agggcaccct caagctcgca aattacaact cgttcgaagg 120
agtgtcttac tgcaggcctc actttgacca gctcttcaag aggaccgga gcctggacaa 180
gagcttcgaa ggcactccaa aggttggtcaa gccagaaagg aatgttgga atgagaatgc 240
tactaaagtc tccagcgcac ttgctggcac tagagagaaa tgttttggat gcagcatgac 300
agtctatcca attgagaggg ttactgtgaa taacactatg taccacagga gctgcttcaa 360
atgctgc 367

<210> 9399
 <211> 371
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F4

<400> 9399

acggtccgga attcacgggt cgacaccctc ccaggacaat ccatcgactt tttcgggtgct 60
 ctgcgtgctc ggggtgtacga cgacgaggtg cgcaagtggg tgacctctac cggtatcgag 120
 aacattggaa agaaccttgt gaactcgagg gacggaccac tgacctttga gcagccaaag 180
 atgacagtcg agaagcggct acagtacggg cacatgctcg tccagcagca ggacaatgtc 240
 cagcgtgtgc agcctgctga cacctacatg agccaagcat ctctgggtga tgccaacat 300
 gatgcgatga aactgggttc ctgctacggt tagaacattc tccatacaga cccagcatct 360
 cgtgctgcat a 371

<210> 9400
 <211> 421
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F5

<400> 9400

gggtcgactt ttccactaac aaacccaaaa aaccaactc tgccttacgt aaagttgcca 60
 gagtacgatt aacctctgga ttgaaatca ctgcttatat acctggtatt ggccataatt 120
 tacaagaaca ttctgtagta ttagtaagag gaggaagggt taaggattta cccggtgtga 180
 gatatcgcat tattcgagga accctagatg ctgtcgcagt aaagaatcgt caacaagggc 240
 gttctaaata tggggtcaaa aagccaaaaa aataagtgat tttagccctt ataaaaagaa 300
 aacggattct tgaacctctt tcacgctcat gtcacgtcga ggtactgcag aaaaaagaac 360
 tgcaaaatcc gatcaatttt ttcgtaatca attagttaac atgggtgggtt aacgtattat 420
 g 421

<210> 9401
 <211> 146
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F7

<400> 9401

```
cccgggtcga caatagcggg aaaatagttg ggatcaaagc caaagatgga attgtccttg   60
gtgtggacaa gctgataacc tcacagatga gacttgccgg gtccaaccgg agacttcatt  120
ccgtgcaccg gaactcgggt tgggtg                                     146
```

<210> 9402

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-F9

<400> 9402

```
taccgatcac gaattcccgg ctcgactacc tgatcagctc caagtgggtg ccttgccctg   60
agttcagcaa ggttgggttc atcttccgtg agcacaacgc atctcctggg tactacgatg  120
gccgtatttg gacaatgtgg aagctgccta tgttcgggtg cactgacgcc acacaggtga  180
tcaacgaggt ggaggaggtc aagaaggagt accctgacgc gtatgtccgc atcatcggat  240
tcgacaacat gcgtcaggtg cagtgcgtca gcttcacgc cttcaagcca ccgggctgcg   300
atgagtccgg caaggcctaa acagctcact cacgacaggc catatataaa gtgccattgc   360
agttttgtca actctgacat tgctttgggt tttccttctc catttatctt tcttatttgc  420
tcctaagaat atgtgt                                     436
```

<210> 9403

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-G11

<400> 9403

```
aggtaccagt caggaattcc cggctcgaca ccttccaag acaatccatc gactttttcg   60
gtgctctgcg tgctcgggtg tacgacgacg aggtgcgcaa gtgggtgacc tctaccggta  120
tcgagaacat tggcaagaag ctggtgaact cgcgggacgg accagtgacc tttgagcagc  180
```

caaagatgac agtggagaag ctgctagagt acgggcacat gctcgtccag gagcatgaca 240
 atgtcaagcg tgtgcagctt gctgacacct acatgagcca ggcagctctg ggtgatgcta 300
 accaggatgc gatgaagact ggtaccttct acggttagaa cattctccat acacaccgc 360
 catctcttgc tgcataggac gaggtaaagg ggcacagcaa tgtactttgc ctgtaccggc 420
 aggatgcacc gaccaga 437

<210> 9404
 <211> 441
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-001-Q1-E1-G12
 <400> 9404

ggtaccagtc aggaattccc ggctcgacag ataaagcatg agctcgctaa catctcagtc 60
 aaggtgaatt ggtccacaaa ttcagctttc taggctcatg gcaatgttga ttagtcacgt 120
 tccatgcgaa gatctatggg tgctgttaac gtgggaaact ttgatgctat tgaagttctt 180
 tcttttttgt tggtagctta ccaagctggg cgcttggtgc tgttgaagcg ttaacgcccc 240
 ttgctaaagc tatatggctg tgctagtctg acagacaaca tggagctagc ttctgtcatg 300
 gggaaagtga aatgaaaaga agccaggtaa actacagtct ggagctcgct tctatcctgg 360
 ggaagatgac cagttgggta tacttatttt ggaacggagg gagtaatgta gcactggacg 420
 gatgtgccct ttattacata c 441

<210> 9405
 <211> 465
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-001-Q1-E1-G3
 <400> 9405

accggtccgg atttcacggg tcgacaaaca tacgttacca aggtcgagag ggggaaccga 60
 cttagcagtc tcatctatcc atttcatatt gccttgaca atgatcccct tgagtatggt 120
 cgcaaggcaa aaaggtctat gcataggaaa aagagctctt tagaagtga gtttatacaa 180
 gtggttggtc aatttttggg gaaatacttt ggcgcaaaga caggagcttt tatcttccgc 240

ctatttgcca cacgtacaag cacactctta tcaaagtgtg ttggggccatc tgaacatata 300
acgctatgtg ggcacccaat ttccttcatg gcaatcaccg cctacgggca accacaggca 360
ctgatcatgc acttcctaaa ttacggtagc actatccggg taactctggc agttgatgac 420
gaacaattcc cagattgtca taagctttta gatgattttg ctgac 465

<210> 9406
<211> 441
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB29-001-Q1-E1-G4
<400> 9406

cggtccggag ttcacgggtc gacggaggcg cggcaccagc cactgaagcc ggggcgtctc 60
agccggctcc aggcgaggac ttggaagccg ctctgccagg cccgccgcca ggaactccac 120
ctccgtctgc gatcaccag caggagactc cagcttctcc ggctgctggc ccagaagatg 180
atctgcctct gcctcctcac cctccactga cccagcatga ggaggatgga acgccagaag 240
atgatctgcc tetgcctcct cctcttccac tgccccagca ggaggctgga gcgccagggt 300
cagcgccaga ggcaggatcc gtcgatgaca agtgggcagg acgtggcgat gacaagtggg 360
cgggacgccc ggatgacaag tgggtctagt ggttgcttan ggctggaac tgaactgaac 420
tgaactgggt gtacatagat g 441

<210> 9407
<211> 443
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-001-Q1-E1-G6
<400> 9407

ccggccgtac ggtacggaat tcccgggtcg acaccttccc aggacaatcc atcgactttt 60
tcggtgctct gcgtgctcgg gtgtacgacg acgaggtgcg caagtgggtg acctctaccg 120
gtatcgagaa cattggcaag aagcttgtga actcgcgga cgaccagtg acctttgagc 180
agccaaagat gacagtcgag aagctgctag agtacgggca catgctcgtc caggagcagg 240
acaatgtcaa gcgtgtgcag cttgctgaca cctacatgag ccaggcagct ctgggtgatg 300

ctaaccagga tgcgatgaag actgggtcct tctacgggta gaacattctc catacacacc 360
 caccatctct tgctgcatac gaggaggtaa aggggcacag caaggtactt tgcctgtgcc 420
 ggcaggatgc accgaccaga ctg 443

<210> 9408
 <211> 406
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-001-Q1-E1-H10
 <400> 9408

ggtaccagtc aggaattccc ggctcgacga ggccttcac gctaagtatg atgtcaagcc 60
 gaacaatgcc attctcgccg aggacaagca cttgcccattg tacgatgagt tgtccagcaa 120
 ggaaaatggt gaatacattg ctggaggagc cacgcagaac tctatcaggg ttgcccaatg 180
 gatgcttcaa actcctgggtg caacaagtta catgggttgc attggaaagg acaagtatgg 240
 tgaggagatg aagagcgccg ctaaagctgc aggagttact gctcattact atgaggatga 300
 ggctgctcct acaggcacat gtgctgtatg tgttggttggg ggcgaaaggt cattgattgc 360
 aaacttatct gctgcgaact gctacaaatc tgagcatcta aagaag 406

<210> 9409
 <211> 439
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-001-Q1-E1-H12
 <400> 9409

taccagtcag gaattcccgg ctgcacgtac tccttactgg ctgggagatg gtcattgggga 60
 cgattgtatg gcgtccagat aggcctctccc acaaagagcc gcattgcctt gatgtagttg 120
 tcaactatcca atgtaaagcg gtgatacatt cctgcaggca aaacaatcat gccacctttc 180
 ttaactgcta tacggatcca ctgttcgttt tgggtccctca catcaaagta tccactgccc 240
 tcgagacaat agcgtatctc ttcatcagta tgcaagtgc cttcaaagaa gttcttcagc 300
 ttggcccat agtttggtgaa cttctctgga catacgtcgc aaatgtccac ataagagtat 360
 cccctggcct cacggatttt cttgagattc tcgtctttct ccagtcac agcattcaag 420

gttcagctta caacaccca

439

<210> 9410
<211> 421
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB29-001-Q1-E1-H3

<400> 9410

gtccggaant aacgggtgga cggcctgata cgctccaagt gggtgccctg cctcgagtgc 60
agcaagggtg gcttcgtctt tcgtgagcac aacagctccc ccgggtacta cgacggccga 120
tactggacaa tgtggaagct gcctatgttc gggtgaccg acgccacgca ggtgctcaac 180
gacgtggagg aggtcaagaa ggagtaccct gacgcctatg tccgcgtcat cggcttcgac 240
aacctgcgcc aggtgcagtg cgtcggcttc atcgattca tgccaccggg ttgcgaggag 300
tctggcaatg cctaaactac gaggtaagc aatggcctat gtatgattgt cttttgtgaa 360
cttcactttt gtccaggact ctgctttccg accagagcat atttttcggt cggtatgata 420
t 421

<210> 9411
<211> 472
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-H4

<400> 9411

cgggtccgat ttcacgggtc gactacttga tccgctcaaa gtgggtgccc tgcctcgagt 60
tcagcaaggt tggcttcgtt ttccgtgagc acaacagctc ccccggttac tacgatggtc 120
gatactggac aatgtggaag ctgcctatgt tcgggtgcac cgacgctaca cagggtgctca 180
acgaggtgga ggaggtcaag aaggagtacc ctgacgccta tgtccgcgtc atcggcttcg 240
acaacctacg ccaggtgcag tgcgtcagct tcattgcctt caggccaccg gggtgcgagg 300
agtctggcaa ggcctaaact acgagttgaa acaatggcct atgtatgaag gtcttttgtg 360
aacttcactt ttgtccacga ctctgctgga cgaccagagc atatttttca ttctatatgg 420

tctgtgtatg tatgtacgaa catagattct cgagcatgca tatgtaaatt ct

472

<210> 9412

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-H8

<400> 9412

tcccggtcg accgcgccgc cgtcccctgg tatgcggagt ttaggaatac tgggttggag 60
agatccgagc cactgaagaa agatctggaa tggttcacgg aacaggggtca caccattcca 120
gaaccaactg ctgctggtac tgcataatgct tcctatctgg aagagttgtc tgagaaggat 180
ccccaagcat ttatctgcca cttctataat gtgtactttg ctcatactgc tggaggccga 240
atgattggca aaaaggttgc cgagaagatt ctggacaaga aagagctgga gttctacaag 300
tgggaaggta ccctgtccca gctgctgcag aatgtccgca tcacactaaa ccaagttgct 360
tctagctggt ctcggaaga gaaggaccac tgcct 395

<210> 9413

<211> 438

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-001-Q1-E1-H9

<400> 9413

aggtaccgat caggaattcc cgggtcgact acctgatcag ctccaagtgg gtgccttgcc 60
tcgagttcag caaggttggg ttcattctcc gtgagcacia cgtatctcct ggggtactacg 120
atggccggta ttggacaatg tggaagctgc ctatgttcgg gtgcactgac gccacacagg 180
tgatcaacga ggtggaggag gtcaagaagg agtaccctga cgcgtatgtc cgcattcatcg 240
gattcgacia catgcgtcag gtgcagtgcg tcagcttcat cgccttcaag ccaccgggct 300
gcgaggagtc cggcaaggcc taaacagctc actcacgaca ggccatatat aaagtgccat 360
tgcagttttg tcaactctga cattgctttg ggttttcctt ctccatttat ctttcttatt 420
tgttcctaag aatatgtg 438

<210> 9414

<211> 454
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-002-Q1-E1-A10
 <400> 9414

ccggacttcc cgggtcgctt acctgatccg ctcaaagtgg gtgccttgcc tcgagttcag 60
 caaggttggg ttcatcttcc gtgagcacia cgcattctct gggtactacg atggccggta 120
 ttggacaatg tggaagctgc ctatgttcgg gtgcactgac gccacacagg tgatcaacga 180
 ggtggaggag gtcaagaagg agtaccctga cgcgtatgtc cgcattcatc gattcgacaa 240
 catgcgtcag gtacagtgcg tcagcttcat cgccttcaag ccaccgggct gcgaggagtc 300
 cggcaaggcc taaacagctc actcacgaca ggccatatat aaagtgccat tgcagttttg 360
 tcaactctga cattgctttg ggttttcctt ctccatttat ctttcttatt tgttcctaag 420
 aatatctgta tgtccatggt catgtaccaa catg 454

<210> 9415
 <211> 478
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-002-Q1-E1-A2
 <400> 9415

ggtccggact taccgggtcg acaccttccc aggacaatcc atcgactttt tcgggtgctct 60
 gcgtgctcgg gtgtacgacg acgaggtgcg caagtgggtg acctctaccg gtatcgagaa 120
 cattggcaag aggctggtga actcgcgga cggaccctg acctttgagc agccaaagat 180
 gacagtggag aagctgctag agtacgggca catgcttgct caggagcagg acaatgtcaa 240
 gcgtgtgcag cttgctgaca cctacatgag ccaggcagct ctgggtgatg ctaaccagga 300
 tgcgatgaag actggttcct tctacgggta gaacattctc catacacacc caccatctct 360
 tgctgcatag gaggaggtaa aagggcacag caaggtactt tgctgtacc ggcaggatgc 420
 accgaccaga ctgccaagaa cttcgaccca acggcgagga gtgacgacgg gagctgccc 478

<210> 9416
 <211> 418
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-A7

<400> 9416

gggccgacat gccgcggaat cagagcagtg tgcgggggtgt ccgggaggag agctgtttca 60
gggctggctc ttcttggcgc cgctgcctct tgcgcgaatc tcctcgccgt gcccattgccg 120
gtgcaggcag caatgctgga gcccgatgtc atcaggtaca gaaagctgga cagtggagta 180
aagcttgaag atgtagtcca tggcgaaggg ccggaggctc gggaaggcga tttagtgtcaa 240
ttcaactacg tgtgccgccg tgcaaattgg tatttctgtc atagcacggt gaatcagttc 300
agcggcgaga gtaagccggt gacacttcga ctgcagctgc aagagatgat tcggggcctc 360
aaagacgtca tagtcggcat gaaagccgga ggcaagagga gggctctgat acccctgt 418

<210> 9417

<211> 469

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-A8

<400> 9417

gggtggactg ggactacatc aaggagaatg aggatcacta tccaggtgta catgatagtt 60
tcaaggcttg tggagtcgat gagtttgtgg ctcagaagct cacaaaatgg aatgatgagc 120
tcatcatgca gttctactcc acaactcatt tctacctaga tggaaggatt gtctggatgt 180
ctgaaggtag gaggtaccag tccacggttg ctgaatgggc gaagttgatc aatgccccaa 240
aagagagtga agatgacttg gatgtctatg ccaaccggaa gaaggatcac aacacaatgg 300
cacacatgta caaggagatc ccacatgctg ctcttgagac acataagttt ggatctgtac 360
attaccttct gtcaggcttg ccaaccatca actggatcct caggcacact ctctttccca 420
agtcaggtag tcacaagatg atcagaggcc atgcaattaa cttgcttca 469

<210> 9418

<211> 460

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-A9

<400> 9418

tccccgggtcg acacgggctaa taacgtacac tgcattgcaag gataccttcc gtgggctgtg 60
ttgtgagtg cctattgtca aagggtgtaaa attcgtgggg gatggatata ccaactgtga 120
agcttccgggt gttggtagggt gtgagatcaa caatggagga tgctggaaag aaactaagaa 180
tggaagaca atatctgcct gctcgcatga agaattctgaa ggttgcaaatt gtccacaagg 240
tttcaagggc gatggtgtaa aaagctgtga agatattgat gaatgcaaag cgaaattctgc 300
ctgtcagtg aatggctgca gttgcgagaa tacatgggga agctatgaat gcagctgtgg 360
tggttaacaac atgttatata tgagagagca agacacgtgc atcagcaaac aagctgcctc 420
ctcagtcggc tggagcttca tgtgggttat tttcttcgga 460

<210> 9419

<211> 342

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-B11

<400> 9419

tggcgaaac cacctacgtc ttcacattga acgacgacgt caacattgtg ccgtcgggtg 60
tgtaactcaa gccgccaaa ccgaaacaag gcatcccgt cgtgctccac tgcgtctaag 120
agccgcacac cccctctttt acaccaaagc tcgggaaact ctcccaaaaa ggggtgcgtt 180
cgtcacagg acctccaaac attacagaat tattacaagt gggatttgga gttgctgttg 240
ttgttgtaat cctcaacctg ttgtgtgttg taattggtgt aatccacacc aagttttgcc 300
tccaacaaac aaataaatca ctgaagggtt cctccttcct tg 342

<210> 9420

<211> 459

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-B12

<400> 9420

ccgaattcc cgggtcgcca aacatacgtt accaaggtcg agagggggaa ccgacttagc 60
agtctcatct atccatttca tattgccttg cacaatgatc cccttgagta tgttcgcaag 120

gcaaaaaggt ctatgcatag gaaaaagagc tctttagaag tgaagtttat acaagtgggt 180
gttcaatttt tgggtgaaata ctttggcgca aagacaggag cttttatctt ccgcctatct 240
gccacacgta caagcacact cttatcaaat gttgttgggc catctgaaca tataacgcta 300
tgtgggcacc caatttcctt catggcaatc accgcctacg ggcaaccaca ggcaactgatc 360
atgcacttcc tagattacgg tagcactatc cgggtaactc tggcagttga tgacaaacag 420
ttcccagatt gtcataagct tttagatgat tttgctgac 459

<210> 9421
<211> 439
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB29-002-Q1-E1-B2

<400> 9421

ggtccggaat taccgggtcg actcctcact tggtaacaa gctcaggggc ggcacgatga 60
tcaagggtcaa gactctcact gggaaggaga tcgaaatcga cattgagccc accgacacga 120
ttgacaggat caaggagcgc gttgaggaga aagaaggcat tcctcctgtg cagcaaaggc 180
tgatttacgc tggtaagcag cttgcagatg acaagactgc caaggactac aacatcgaag 240
gtggctcggc cctccatctt gtccttgctc tganggggtg ttactagtta agctgtaatg 300
ggaacacttg cctcctgaga gaagtgaaca ttggtggcat ggaacctgtg ttggtgttgc 360
aaagagataa taacaaacta gctttgctta gtgggagggg ctgtcttcca tgttatctgc 420
ctatatgatt tgacaaaac 439

<210> 9422
<211> 481
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-B8

<400> 9422

taccggtcag gtacttcccg ggtggactga tcttacttgc aatcgtttct ccaaagtgtt 60
tcttcacaag atgtctctca tcaactcctt tagttttatc atgaatactc gatcaacaat 120
atctggccgg tcggctggat ttaagcctcc tcttgcttca tctagcatgt attggatctc 180

gggccacttt gcattgcatg tgaatgttat aaacaggtct ggatatccag cccaacggca 240
tattgcaaaa gcgtcttgca agttctgtgc cttgtatctt ctgcctcctg taaaagatga 300
aggtacaatt atcctctttc caacctgctc tgttctgggtg tcacctcgct caatcgctc 360
ttgcagtcca ctataaagtt cagttcgtaa cttcccttga ttattcctga tctagtttag 420
tctgttttgc tcaatgcatg tgtaaacatc ttacccaaat tgcagcgata gatgtctaga 480
c 481

<210> 9423
<211> 423
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-B9
<400> 9423

acagtccgga cttcccgggt cgactaggaa ggattcaaaa tcagcatgga aggttcttat 60
catggataag tttatgggtca agataatgtc ctactcatgt aagatggcag acatcacaga 120
agaaggggtt tcattgggtg aagatctata caaacggaga cagccgttgc cttcactgga 180
tgctatatat ttcaccaac caactaaaga aaacggtgtt atgttctctc ctgacatgtc 240
aggaagaagc ccgttataca agaaggcgta tgtgtttttc agttctccca tacagaaaga 300
cttagttgct caaataaaaa gggattcaag tatattacct cgtattgggtg cacttagtga 360
gatgaatttg gagtacttcc ctattgattc ccagggtttc ataactgacc catgaaaggg 420
caa 423

<210> 9424
<211> 437
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB29-002-Q1-E1-C11
<400> 9424

ccggaattcg cgggtcgaca agtcagttaa agtaccacc gttgagccag tttatgtcaa 60
tgaagagtac atcccgtttc ctcccttccg catccgcaac atcagggatg caaagaaggc 120

agcggctgat gccaggagtg gctcctacgg caatgccacc atctctcatg gatcgtagac 180
cgaggagggt catctgtagt tctattaggc gacttggtt aagggttggt atgaactatg 240
atcggcgaat tttgtcagat tggctggagt tttgcaccct tgtggggtag tgttaggata 300
gaccggtgaa tttggtctgt tcttcagacc gacccttgcg cggcagcttt gaattgctga 360
ggccagtttg aattatgcta aaccttcacg gatgatgtta tgggcgttca ggcttacttt 420
canggttggtt ttctgat 437

<210> 9425
<211> 445
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-C12

<400> 9425
gggtcgccac tttcaaattg atatttgatg agtttgtgaa gatgatggga gggaaaagac 60
caattaccat tttaacagac caagcgaggg cgatggaagt cgctattgag gacgtatata 120
cggatgcaac acagagatgg tgcaagtggc acatcctgaa gaaggccaaa gagagcctgg 180
ggtctaatta caccaagaaa tctgatttca gggcagaatt ccacaaattg gttcacgaaa 240
tgctgactat agaggagttt gaggacaggt gggcagcgtt gcttgagaag tattcactga 300
ctaagaacac gcacctgacg caaatttacg agacaaggca gaaatgggcc aagccatact 360
ttgcaggaaa attctgcgca aggcaaaaca gactgggag gagtgagagc gccaatcaca 420
tgttgagaca gtatgtgcca acttc 445

<210> 9426
<211> 362
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-C3

<400> 9426
ggtccggatt accgggtcga caagctcacc gccgacaaac gggctctacca caaggcctgc 60
ttcaggtgcc accactgcaa gggcaccctc aagctcgcaa attacaactc gttcgaagga 120
gtgctctact gcaggcctca ctttgaccag ctcttcaaga ggaccgggag cctggacaag 180

agcttcgaag gcactccaaa ggttgtcaag ccagaaagga atgttgggaa tgagaatgct 240
 actaaagtct ccagcgcatt tgctggcact agagagaaat gttttggatg cagcaagaca 300
 gtctatccaa ttgagaaggt tactgtgaat aacactatgt accacaagag ctgcttcaaa 360
 tg 362

<210> 9427
 <211> 436
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB29-002-Q1-E1-C7
 <400> 9427

gtaccggtca ggatattcnc ggtcgacgc tccatttggc cctgaggctt aggggtggaa 60
 ctatgatcaa ggtgaagaca cttactggga aggaaattga gattgatatt gagccactg 120
 acacaatcga cagaatcaag gaacgtgttg aggagaaaga gggattcca cctgttcaac 180
 agaggctcat ctatgctggg aagcaactcg ctgatgacaa aactgctaag gactacaaca 240
 tcgaagggtg ttcagtgtc catcttgtgc ttgctctgaa gggcggtcag tagatgcaac 300
 ctcgacgtgg accgtaaagg ccatttctac cagaacttgt ttgcagacct agatctgtga 360
 attttgcggt tgattgaagt gccatgtaat tgacgcattt gtgaagtcag ctgtcacctg 420
 tacttggatg gaattg 436

<210> 9428
 <211> 419
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-002-Q1-E1-D1
 <400> 9428

ggtccggaat accgggtcga ctctggcaag tcgaccacca ctggccatct gatctacaag 60
 cttggaggta ttgacaagcg tgtgatcgag aggtttgaga aggaagccgc tgagatgaac 120
 aagaggcttt tcaagtacgc ctgggtgctt gacaagctga aggccgagcg tgagaggggt 180
 atcaccattg atattgccct gtggaagttc gagaccacca agtactactg caccgtcatt 240
 gacgcccctg gtcaccgtga cttcatcaag aacatgatta ctggtacctc ccaggctgat 300

tgtgctgtgc tcatcattga ctctaccact ggtggttttg agactggtat ctccaaggat 360
ggccagacgc gtgagcacgc cctccttgct ttcactcttg gagtgaagca gatgatcta 419

<210> 9429
<211> 354
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D10

<400> 9429

gggtggccac cttcccagga caatccatcg actttttcgg tgctctgctg gctcgggtgt 60
acgacgacga ggtgcgcaag tgggtgacct ctaccggtat cgagaacatt ggcaagaagc 120
ttgtgaactc gcgggacgga ccagtgacct ttgagcagcc aaagatgaca gtcgagaagc 180
tgctagagta cgggcacatg ctctgcccagg agcaggacaa tgtcaagcgt gtgcagcttg 240
ctgacaccta catgagccag gcagctctgg gtgatgctaa ccaggatgcg atgaagactg 300
gttccttcta cggttagaac attctccata cacacgcagc atctcttgct gcat 354

<210> 9430
<211> 474
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D11

<400> 9430

tggccgtacc agtccggaat tcgcggtcgc accagtctaa cgtggccatc agggagcagt 60
ttgggaagtt tgacagtgtg cttgagccag gatgccactg cctgccttgg atctttggga 120
aacgtgtagt tggccatctc aactcaggt tgcagcagct ggatgtgctg tgtgaaacta 180
agacaaagga caatgtgttc gtcactgttg ttgcatcgat tcagtaccga cctctggctg 240
gcaaagaaag tgacgcatac taaaactga ccaacacaag atcccagatt caagcctatg 300
tctttgatgt gatcagggca agtggttcaa agctcaacct ggatgatgct ttcgtgcaga 360
agaacgatat agcaaaggct gtggaggatg aacttgaaaa agctatgtcg gcatatggct 420
ttgagatcgt gcagaccctc attgtcgaca tcgaaccaga tgcgcatgtc aagc 474

<210> 9431
 <211> 342
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D12

<400> 9431

gtggactatc gcaacaccca atatcatggg gtcacggcc tcggcacgcc gctgcaaaat 60
 ttcacggtga gattcgagac cgggagctcc aatttgtagg ttcccactgc gaaatgctat 120
 ttcactaggg catggtagtt ccatgccaaa tagaaatcga gcacgtcagg catgtaatag 180
 catatggtga gatttgcgat acatatgggg atctagaact tacactggac ttttcagcat 240
 tgagaaagta ttggttggag acacagatgt cgtaaacatt gggacattga tcacaacagt 300
 gaatatatgt ccatttgcac tctcgtgagt atgatgacac ca 342

<210> 9432
 <211> 391
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D3

<400> 9432

ggtccggaat accgggtcga cttttccact atcaacccca aaaaacccaa ctctgcctta 60
 cgtaaagttg ccagagtacg attaacctct ggatttgaaa tcaactgctta tatacctggt 120
 attggccata atttacaaga acattctgta gtattagtaa gaggaggaag ggttaaggat 180
 ttaccggtg tgagatatcg cattattcga ggaaccctag atgctgtcgc agtaaagaat 240
 cgtcaacaag ggcgttctag tgcgtttag attcttatcc aagacttgta tcatttgatg 300
 atgccatgtg aatcgctaga aacatgtgaa gtgtatggct aaccaataa cgaaagtttc 360
 gtaaggggac tggagcaggc taccatgaga c 391

<210> 9433
 <211> 316
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D4

<400> 9433

ggtccggaat taacgggtcg actccgagga actcactgtg gaggagcgca acctgctctc 60
 tgttgcatat aagaatgtga ttggagcccg ccgtgcctca tggcgcatca tctcctccat 120
 tgagcagaag gaggagagcc gtggcaacga ggaccgggtc acgctcatca aggagtaccg 180
 tggcaagatc gagactgagc ttagcaagat ctgtgatggc atcctcaagc tgctcgaaac 240
 ccaccttgct ccgtcttcca ctgcccctga gtccaaagtc ttctatctta agatgaatgg 300
 tgactactac agatat 316

<210> 9434
 <211> 234
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-002-Q1-E1-D5
 <400> 9434

accggtcagg acttcgcggg tggacggggg cgcaggctag gttaaggaag gagatcaacg 60
 aactcgcgct taaaagatat cttcatcttc cagcgcgctt tggattcctg gagcgttgca 120
 agatcacgct caagtccgtg gagaggaaca ggtcgtggga ggtggaagggt gggatagggg 180
 atccaccggt gagcaagccc tgtgagtgcc atacaccagg gaggagggcg gact 234

<210> 9435
 <211> 480
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-002-Q1-E1-D6
 <400> 9435

taccggtcag gaattcccgg gtcgcctact tgatccgctc caagtgggtg cctgcctcg 60
 agttcagcaa ggttggtctc gttttccgtg agcacaacag ctcccccggt tactacgatg 120
 gtcgatactg gacaatgtgg aagctgccta tggtcgggtg caccgacgcc acacaggtgc 180
 tcaacgaggt ggaggagggtc aagaaggagt accctgacgc ctatgtccgc gtcacgggct 240
 tcgacaacct gcgccagggt cagtgcgtca gttcatcgc cttcaggcca ccgggttgcg 300
 aggagtctgg caaggcctaa actacgagtt gaaacattgg cctatgtatg aaggctcttt 360
 gtgaacttaa cttttgtcca ccactctgct ggacgaccag agcatatctt tcattctata 420

tggtctgtgt gtgtatgtac gaacataggt tctcgagcat gcatatgtaa attctagaac 480

<210> 9436

<211> 353

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-D7

<400> 9436

gggtcgacga cagcaacgtc ttcgagtggc aggtcaccat catcggcccg cccgagaccc 60
tatatgatgg aggctatttc aatgcaataa tgagcttccc acaaaattat ccgaacagcc 120
ctccaacagt cagattcact tctgaaatgt ggcatacctaa tgtttatccg gatgggagg 180
tatgcatttc tattcgatc ccacctgggtg atgatcccaa cggatacgag ctgcgagtg 240
agcgttggac accagtccat acggttgaga gtatagtatt aagcatcatt tcgatgcttt 300
ctagtccaaa tgatgaatca ccggcaaata ttgaagcagc taacgactgg aga 353

<210> 9437

<211> 359

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E1

<400> 9437

ggtccggatt accgggtcga cgagcctccc aggacaatcc atcgactttt tcggtgctct 60
gcgtgctcgg gtgtacgacg acgaggtgcg caagtgggtg acctctaccg gtatcgagaa 120
cattggcaag aagcttgtga actcgcgga cggaccactg acctttgggc aaccaagat 180
gacagtcgag aagctgctag agtacgggca catgctcgtc caggagcagg acaatgtcaa 240
gcgtgtgcag cttgctgaca cctacatgag ccaggcagct ctgggtgatg ctaaccagga 300
tgcgatgaag actggttccg tctaggggta gaacattctc catacacacc caacatctc 359

<210> 9438

<211> 481

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB29-002-Q1-E1-E11

<400> 9438

ctggccgtac cagtccggat attcccgggt cgacaccttc ccaggacaat ccatcgactt 60
tttcgggtgct ctgcgtgctc ggggtgtacga cgacgagggtg cgcaagtggg tgacctctac 120
cggtatcgag aacattggca agaagctgggt gaactcgagg gacggaccag tgacctttga 180
gcagccaaag atgacagtgg agaagctgct agagtacggg cacatgctcg tccaggagca 240
ggacaatgtc aagcgtgtgc agcttgetga cacctacatg agccaggcag ctctgggtga 300
tgctaaccag gatgcgatga agactgggtac tttctacggt tagaacattc tccatacaca 360
cccaccatct cttgctgcat aggaggaggt aaaggggcac agcaaggtag tttgcctgta 420
ccggcaggat gcaccgacca gactgccaag aacttcgnac caacggcgaa gagtgcgcac 480
g 481

<210> 9439

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E12

<400> 9439

ctggccgtac cagtccggaa ttcgcgggtc gactatgggtg ggatgaagta gtcggaactg 60
tgctgacgtg tccaaatatt tgtatgcagg ccttgataga tcttgcgcag gacagactgc 120
tcactgttcg tgaaagtgtc cgattgcaag gttttcctga tagctacagg tttcgtggaa 180
cagtcaaaga caggtatcgc cagattggaa atgctgtggc cgtaccggtt ggccgtgcac 240
ttgggtatgc cttggccatg gccaacctga acaagactgg aaatgatccc ctcatggagc 300
taccacccaa gtttgcattc tctcatatag aaggcactcc ttagtcagac tggcaaaacc 360
taacggttga cttttccacc tgggtttaag tctcgtcatc tccgttcatt ctccgctaga 420
aaagctgggt acctcatggt cgtgaatatc attaagactc gtgaatatcg t 471

<210> 9440

<211> 465

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E2

<400> 9440

cgccccgggtcc ggaattaccg ggctgacgac ctgatccgct ccaaattgggt gccttgccctc 60
tagttcagca aggttgggtt tatcttccgt gagcacaacg catcccctgg gtactacgat 120
ggccggtgct ggacaatgtg gaagctgcct atgttcgggt gcaccgacgc cacgcagggtg 180
atcaacgagg tggaggaggt caagaaggag taccctgacg cgtatgtccg catcatcgga 240
ttcgacaaca tgcgccaggt gcagtgcgtc agcttcatcg ctttcaagcc accgggctgc 300
gaggagtccg gcaaggccta aacagctcac tcaccacggg ccacatataa agtgccattg 360
cggttttgtc aactctgaca ttgctttggg ttttccattt ccatttatct ttcctggttg 420
gtcccaagat aagaataatt gtaggtccat gttcccgaca tgact 465

<210> 9441

<211> 423

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E3

<400> 9441

ggtccggact taccgggtgg acgccctcga tggcaacacc aacttcgttc atggctttcc 60
ttttgtgtgc gtctcgattg gcctcaccat tgggaagatt cccaccgttg gagttgtgta 120
caaccccatc atgaatgagc ttttcacagc tgttcgtgga aaagggtgctt ttctcaatgg 180
ttctccaatt aaaacatcgc ctcaaaatga gttggtgaag gctcttatgg tgacagaggt 240
atggaccaa agagacaagt ccactttgga tgatacaacc aacagaatta ataagttact 300
attcaagatt agatctatac gtatgtgtgg ctctttggct ctaaacaatgt gtggagttgc 360
ctgtggtatg ctagatttgt gttatgagat cggttttggt ggcccctggg atgtggctgc 420
tgg 423

<210> 9442

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E4

<400> 9442

gggtccggatt taccgggtcg actacctgat ccgctcaaag tgggtgcctt gcctcgagtt 60
cagcaagggtt ggggtcatct tccgtgagca caacgcatct cctgggtact acgatggccg 120
gtattggaca atgtggaagc tgcctatgtt cgggtgcact gacgccacac aggtgatcaa 180
cgaggtggag gaggtcaaga aggagtaccc tgacgcgtat gtccgcatca tcggattcga 240
caacatgcgt caggtgcagt gcgtcaactt catcgccctc aagccaccgg gctgcgagga 300
gtccggcaag gcctaaacag ctcaactcag acaggccata tataaagtgc cattgcagtt 360
ttgtcaactc tgacattgct ttgggggttt ccttctccat ttatctttca tagttgttcc 420
taag 424

<210> 9443

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-E6

<400> 9443

ccgtaccggt caggacttcg cgggtcgacc gccgcggcta acaggtgcta cgcaaccgtc 60
gcgccccgtg cccgtctctc caccatcgtc gccagcctcg gcacccccgc gccctccaac 120
tcctctctct tccgccccaa gtcctcagg aacaccccag tccaggccgc gcccgtcgca 180
cccgattga tggacgccgc cgtggagcgc ctcaagaccg gggtcgagaa gttcaagacc 240
gaggtctacg acaagaagcc cgatttcttc gagccctca aggcgggcca ggcgcccaag 300
tacatgggtg tcgctgccc gcactcccg gtgtgcccct cggtcaccct gggcctgtag 360
cccggcgagg ccttcaccat ccgcaacatc gccaacatgg tcacgtccta ctgcaagaac 420
aagtacgc 428

<210> 9444

<211> 472

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-F11

<400> 9444

tggccgtaca atccggaatt cccgggtcga ccgcgagctg catcgacatc gaccgattct 60
 cttcttcttt ggcggtctgc accttccgtg cgggctgtgg aggacggatg acgcggtgct 120
 gttagggcgc tgacaggcag cggttctacg tccccctctcc gagcagctct ttcattgggac 180
 aggcaattga aggtatggac tacaacagta cagactgtta tatactctgga aggcgaaatt 240
 ttggggcggt acctgggttat tgaatgacag acagttatat aagagagaag attcctaggt 300
 ttgccatgac agacaagatg gtggcaaggc cttgctcgtt ttagaggaca tgggatacat 360
 acaggaagca gctgaaattg atgttggcaa gtctgggtatt tagaagaaat ctcatgaagt 420
 cattcaacaa acgtttgcga acaagcaatt tgtcttctg gacatggctt ca 472

<210> 9445
 <211> 427
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-002-Q1-E1-F12
 <400> 9445

gggctcgacat cgacatcgcc aagaagcata atgctgggac aaacaaagct gctcatagca 60
 ccacatcgct caatacaaag aggcttgatg atgatacaga gaatcttgct catgagcgtg 120
 tgccgtcaga cctgaagaag agcattatgc aggctagaac ggacaagaag ctcacacagg 180
 cacagcttgc acagctgatc aatgagaagc cacaagtcac ccaggagtac gagtcaggca 240
 aggctatccc aaaccaacgg atcatcgga agctggaaag ggctcttggc acaaagctgc 300
 gaggcatgaa gtgaagctgc gtgcatctga caggagtcga gtctttcaag agaggagctt 360
 ggctgggcaa gtttaccgct aaataaagct tgtctactaa atcatgcgac ttatgagaac 420
 cctggag 427

<210> 9446
 <211> 411
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB29-002-Q1-E1-F2
 <400> 9446

ggtccggact tancgggtcg acagattgcg acaagctttt cctgcgggtc ccgtgtatgt 60

tagggctcaa gacatgtctc atttggttga tctaaggaaa gcagggtcga ccgatgttgc 120
tctagaaaat gccgagacta gcttgcaact aggctcgatg cttatgaaag ggctgggtgt 180
catgtctgat gatgtatctt tcttgagtaa gcttgtgagg gactcgatgg agttacaagc 240
tcaggaggca ctcaacaacg tcgaggatcg tgaaactact accatggagt cacttcaggt 300
tagagtatcg gacttggttg agtccaatgg gaacgggtcc ggaatgattc cccgggagca 360
atcgctaggt ctaagcagtc gcccgggagg tacngggtgg ataaaaacga c 411

<210> 9447
<211> 425
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB29-002-Q1-E1-F3
<400> 9447

ggtccggaat atccgggtcg acctcaagag ggtattccca gataaaaaga tcggcaagat 60
aatcgaaaca agcctatcag cgaaccaaga gcgcgccgcc atggagaaga agaggctgaa 120
gtggaagggtg gctgggcctc ccccaaaaga aaatgtgggtc cgtggagggc ccgtggaccc 180
ctccaagctc gtcgtcgagc tggcacccat ggagatccgc acattcgtca tcaacttcga 240
ccaccgactc gccgcacatc cgatctaggc gccgacattg taactttttt gtaattttga 300
accagaatgt tgtattgttg aagctgaact cgaatgagtt gtgaatagca ataagaaata 360
atgtggccaa cggagggtcg agcgtcatca acttcttaaa taagcttccg ctagtgagat 420
caana 425

<210> 9448
<211> 459
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB29-002-Q1-E1-F4
<400> 9448

ggtccggatt acncgggtcg acaacctcta catttcacac atccaggtga accaagccca 60
aaagcagagg cgccgtacat accgtgctca cggacgcac aatccttaca tgtccaaccc 120

ctgccacatt gagctgatct tgtcagagaa ggaagagcct gtgaagaagg aggctgataa 180
 cgtcgtcgca ccaaggaaag ctatctaagc taccggaatg gatgcattcg cccaacagtc 240
 ttagttgtag ttcttctcaa gtacctttgt tggcagtgtt tgttgccctcc ttgatgtttt 300
 tgttaccaac attgagtaag gatttgtaa gggtgatgtt atccttgtga ttgagtgagg 360
 tctttatatg ctaaaacagt ttcagatatt tgagcattag cacaccagaa cttatttctc 420
 agagatgctg gtcctttcgg gctcttcact ttgaggat 459

<210> 9449
 <211> 401
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-002-Q1-E1-F5
 <400> 9449

accggtcagg acttcccggg tcgacgagtg ctgctgcgaa ccgcccatca tttcgtgag 60
 ctgatcgaac cacgtacgag gtccagacga cggccgaccg atcgaccgac cgacgaacca 120
 tccgagccga gctacgtacc taacgtactg gtagtagtac atgtgcgatt tatatatgag 180
 tgtcgtgtgt atgtgtgctt ccttgagct gttgctttca gctatagcaa tagcatatgc 240
 ccctagaggc ctagaacaga gtagaactgc agaaagaata gccagcccgt cctgccgttc 300
 gggttcagctc tccagcggca cgacgggtgg gtgggtgtgtg ttgcatgtat gtatgtatct 360
 gatgtgatcc cctaaaaaag agtatctgat gtgagtctac g 401

<210> 9450
 <211> 464
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB29-002-Q1-E1-F8
 <400> 9450

ggtcgactca cctgccctca agcacttgat ttcctagggtg gttgcggctc gcgcgccaac 60
 tgctcgacgc aattccgctg cagaatcttc tctgccattt gggggagcgc atgcgggtgac 120
 ggtgtttcct atggcgtgtg ctccaaatta tattgccatt ggcttttcca actatggttt 180
 agatacgggg acaagggtac tctcgccgag ctacaagaac ttcccacgga aatcctccta 240

caagttttctc aaggtccgtg ctctgcatgg aaatgatggc cgtagaacgc tgattgacat 300
aatctggatc atgccggagc tgtcaatgaa ctatttcata aacgggtcca tgagagctct 360
tttcggcggc atcgcaactgc tgggtggctt ttatgttgcg cagacattat ccctgtcatt 420
cggtgctttg ggcgttaacg atgttatcgc atgagttgtg tgtg 464

<210> 9451
<211> 464
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-F9
<400> 9451

tccggatttc ccgggtcgac gggcgtttgg gctgaactct gtgtcttcaa ctccggcgcc 60
aacgactgga gaatcatcac cgaggtgttt gctgatgagc tccctgacct ctggtggtcc 120
gatgatgtgt ttgctttcga cggccgtttc ctttgcctggg tggactactt ctgcggcgtc 180
gtgctatgcg acttctccaa aaatgtggac tcccaggtgc tccacttcgt gccttttctt 240
ggaggaatca aatacccttt tgacgcacgg ttcccagagt acttcccagg gaggttccga 300
agtgcgtcca tcagccaagg catgatccgc tatatccaca ttgacaatga ctttcatgag 360
actaccact ccgactggca agtcatgatt cctcctaaga gaagccaacg gcggcagcag 420
cagcttcccc acaaaatcac catttggacg ttgaactcca agtt 464

<210> 9452
<211> 472
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB29-002-Q1-E1-G10
<400> 9452

cctgcccgtc cagtccggaa ttcncgggtc gactcgcccg tggctcttctt cccggggccgt 60
cgtcctcttc ctccccctcc ccctccccct acatattccg tggtggcgca ggacatgtga 120
taaagggacc tgatgaaggg atcttgtcga tgaaagttgg aggattacgt cggttgtaca 180
taccgggtca attagcattc cctaagggcc ttacatcagc tcccgggagg ccaagagtgg 240

ctccgagcag ccccgctcgta tttagacgtca acctattggt cgtacctggt cttgacgatg 300
atgggtgaaa gcatcatctt gcatctttac aggacgcaac tgaagagagt gattttcctt 360
ttgtgaatta ccatgtgagt agagtgacaa ttgttttctg cagcataata tacaaaacta 420
tgatgatttg tattaagtgc atagcaacct ttggttgtga atgggataat gt 472

<210> 9453
<211> 455
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-G2
<400> 9453

cgggccggac ttaccgggtg gacgagggga cctccgactg catcgtcaca agttactgcg 60
aaggaggtga catggcgagc aggatcaaga aggcaagagg cgtcctcttc tcggaagaga 120
gggtgtgccg gtggttcaca cagttgctct tggcccttga ctacctgcac tgcaaccgcg 180
tgctccaccg tgacctcaag tgttccaata tcttgtaac caaggataac aacatacgac 240
ttgctgattt cgggttagca aaattactca tggaggatct tgcgtcgtcg gtagtaggaa 300
ccccaaacta catgtgcccc gaaatactcg cggacatacc ttatgggttac aaatctgata 360
tatggtcgct tggttgctgt atgttcgaga ttttagcaca gcgctctgca ttcaaagcta 420
cagacatggc aacattagtc aacaaaataa acaga 455

<210> 9454
<211> 394
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-G3
<400> 9454

gggccggaat acacgggtcg acttttccac tatcaacccc aataaaaacc caactctgcc 60
ttacgtaaag ttgccagagt acgattaacc tctggatttg aaatcactgc ttatatacct 120
gggtattggcc ataatttaca ataacattct gtagtattag taagaggagg aaggggtaag 180
gatttaccgc gtgtgagata tcgcattatt cgaggaaccc tagatgctgt cgcagtaaag 240
aatcgtcaac aagggcggtc tagtgcgttg tagattctta tccaagactt gtatcatttg 300

atgatgccat gtgaatcgct agaaacatgt gaagtgtatg gctaacccaa taacgaaagt 360
ttcgttaaggg gactggagca agctaccatg agac 394

<210> 9455
<211> 289
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-G5

<400> 9455

gggtcgactt ccaccaaagc gaaatccacc atctcatcga aagacgggac acctttgcct 60
ctatcaagtg ggatcagatt tccaggttgc tccgtgagat ttacagttt ttcatagttt 120
agatcgagtc tgttcttcat acctacagtc gacaaagaag ccacaatcta cattaagggt 180
agttcatcat atccgaacca atcagagcct ttgcataatc gtttttagggg ttgactttgc 240
tgaatttgcc ggtgcacact cgggtatactt gctgggtctta acgtccagt 289

<210> 9456
<211> 485
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-G6

<400> 9456

ggccgtacgg taaggaattc gcgggtcgac tacctgatcc gtcctaaatg ggtgccttgc 60
ctcgagttca gcaagggttg gttcatcttc cgtgagcaca acgcatcccc tgggtactac 120
gatggccggg actggacaat gtggaagctg cctatgttcg ggtgcaccga cgccacacag 180
gtgatcaacg aggtggaaga ggtcaagaag gaggaccctg acgcgtacgt ccgcatcatc 240
ggattcgaca acatgcgcca ggtgcagtgc gtcagcttca tcgccttcaa gccaccgggc 300
tgcgaggagt ccggcaaggc ctaaacagct cactcaccac gggccacata taaagtgcc 360
ttgcggtttt gtcaactctg acattgcttt gggttttctt tctccattta tctttcttgc 420
ttgtccctaa gaatatgtgt atgtccatgt tcatgtacca acatgtctcg agaaaacatg 480
ctcgt 485

<210> 9457

<211> 290
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB29-002-Q1-E1-G8

 <400> 9457

 gggtcgacac gagaacttca aaagcggcgt aatgaggtgg caattaacgg gtggctgcac 60
 cagtatttcg agtcaggtgt ttccatgtac gaagacaagt ttgagttaac tggtcgaagc 120
 cgaagattat gccaggacac agcaagtaat ccgccccaaa aaactaaatg ggttacaaaa 180
 gcaattccaa aaccctgcaa caacaactcc catgcttgac gtttgcaa at acccattttc 240
 cctcccactt acaaggacaa aggagctaag agctctgact ggggtggcgg 290

<210> 9458
 <211> 474
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB29-002-Q1-E1-H10

 <400> 9458

 cctggacgta caagtccgga attcgcgggt cgactacctg atccgctcaa agtgggtgcc 60
 ctgcctcgag ttcagcaagg ttggttcgt cttccgtgag cacaacagct cccccgggta 120
 ctacgacggc cgatactgga caatgtggaa gctgcctatg ttcgggtgca ctgacgccac 180
 acaggtgctg aacgaggtgg aggaggtcaa gaaggagtac cctgacgcct atgtccgtgt 240
 catcggcttc gacaacctgc gccagggtgca gtgcgtcagc ttcacgcct ttaggccacc 300
 gggttgag gagtccggca aggcctaaac tacgagttga aacaatggcc tatctcgtat 360
 gaaggtcttt tgtgaacttc acttttgtcc aaaactctgc tgtacgactc tgctttctga 420
 ccggagcata cttttgttc tatatgattt tgtgtatgta tgtacgaaca tagg 474

<210> 9459
 <211> 476
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB29-002-Q1-E1-H12

 <400> 9459

cctggacgta ccagtccgga tattccgggt cgacaaaatt tgttccgaca attatgaaca 60
ctctgaagag actagctgat gagggggcag cgcccgcagc cccagagagg cagagagaga 120
cggagctcca accaaggaat aatagttcaa acagcaacgt gacatcagca ggttcctcca 180
gcttaacctc ttcagagaat ggacctgaat attcaagccc ggtagcacia tgatgagtgg 240
atccctagct tttagctgaa agctctacta gctgtagctg caacggtttg agcctaggag 300
attgaagtgc cttgcggttt ttgtacgctc gcttgccctt cccaacctga tatatgaaaa 360
ttatgtggaa gagtccacag ctgttatata aggaattttg gggctgggaa tcgtttgtaa 420
gaaacattgt agaacaactt ccgtttcact tttatttttg taatatctta tatgat 476

<210> 9460
<211> 477
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-H5
<400> 9460

taccggtcag gacttcgagg gtcgactttt ccactatcaa acccaaaaaa cccaactctg 60
ccttacgtaa agttgccaga gtacgattaa cctctggatt tgaaatcact gcttatatac 120
ctgggtattgg ccataattta caagaacatt ctgtagtatt agtaagagga ggaaggggta 180
aggatttacc cgggtgtgaga tatcgcatia ttcgaggaac cctagatgct gtcgcagtaa 240
agaatcgtca acaagggcgt tctaaatatg ggggtcaaaaa gccaaaaaaa taagtgattt 300
tagcccttat aaaaagaaaa cggattcttg aacctctttc acgctcatgt caggtcgagg 360
tactgcagaa aaaagaactg caaaatccga tccaattttt cgtaatcgat tagttaacat 420
ggtggttaac cgtattatga aagacggaca tcatcattgg cttatcaaat tctctat 477

<210> 9461
<211> 448
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB29-002-Q1-E1-H7
<400> 9461

ggccgacttt tccactaaca aacccaaaaa acccaactct gccttacgta aagttgccag 60

agtacgatta acctctggat ttgaaatcac tgcttatata cctggtattg gccataattt 120
 acaagaacat tctgtagtat tagtaagagg aggaagggtt aaggatttac ccggtgtgag 180
 atategcatt attcgacgaa ccttagatgc tgcgcagta aagaatcgtc aacaagggcg 240
 ttctaaatat ggggtcaaaa agccaaatga ataagtattt ttagccctta taaaaagaaa 300
 acggattctt gaacctcttt cacactcatg tcacgtctag gtactgcaga aaaaagaact 360
 gcaaaatccg atccaatttt tcgtaatcga ttagttaaca tgggtggttaa ccgtattatg 420
 aaagacggaa aataatcatt ggcttatac 448

<210> 9462
 <211> 442
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB29-002-Q1-E1-H9

<400> 9462

gtcgaccag agtaattaca atgggtgaat ctgatccttt ccatggttac gaaactgaaa 60
 ctattgtggc acatcttact aagttgaata acatagccac cctttttact catgatgaga 120
 agacttgcta ttactacatt ctcaaattat ttctgttctc attaaagggg gatgctaaag 180
 cttggtacaa tactcttgct actgggtgtg tgcgtagtcc ccaggatatg atttattact 240
 tctctgaaaa atatttccct gtcataaga aacaagctgc cttacatgaa atatttaagt 300
 ttgtgcaa at taaagaagag agtctccac aagcttggcg gaggctttgc caattactta 360
 atgctttgcc tgattatcct cttaagaaaa atgaaatgct tgatatcttc tataatggag 420
 taaccgatgc ttctagggat tt 442

<210> 9463
 <211> 321
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-A1

<400> 9463

tgctgacaac aggaatggca tcgccatcg caacacgcct ggtgttctta ctgagacgac 60
 ggcggagcta gcggcatcgc tgcgggtggc ggctgcccgg aggatcggtg aggccgacca 120

attcatgagg gctggcctct acgacggatg gctcccgcac ctgtttgttg ggaacttgct 180
 caaggggcag actgttggag tgatcggagc tggccgcac ggctcagctt atgcaaggat 240
 gatgattgag gggttcaaga tgaacttgat ctacttcgac ctgtaccagt ccacacggct 300
 cgagaaattc gtcaccgcgt a 321

<210> 9464
 <211> 460
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB30-001-Q1-E1-A10
 <400> 9464

tacggctctta tcttcncggg tcgacaatag cgggacaatc gttgggatca aatgcaaaga 60
 tggaattgtc cttggtgtgg agaagctgat aacctcaaag atgatacttg ccgggtcgaa 120
 ccggagactt cattctgtgc accggaactc tggcttggct gtggctggat tagcagcaga 180
 cggtaggcag atagtctcaa gagcaaagtc agaagcagcc aattatgaaa aggtatacgg 240
 agaacccatg cctgtaaaagg aattagctga tcgcgttgct agctatgttc atctgtgtac 300
 actctactgg tggctcaggc cttttggctg tggagttatt cttggaggct atgataggga 360
 tgggccacag ctctacatga tcgaaccttc aggcctctcc tagaaatatt ttggtgctgc 420
 tctgggtaaa ggatgacgag ctgcaaagac ggagattgag 460

<210> 9465
 <211> 417
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-001-Q1-E1-A11
 <400> 9465

acctggcctc acagtcacac gcgctgggct cgctcatcgg cgctgggctc agcagcacia 60
 gcaagggtgt catgacggag ctcgctctacg gcgacaacag ccaggcaacg gcggcggtaa 120
 gtacatcgcc ctctctgtct gctttctggg gtccttcact tgcttcatcc actccgcgaa 180
 gtactatgtc caaaccagct tcctggtgac cacgctggac tctgacgtct cggcgagcta 240
 catgcagcat gcgggtgatcc ggggcggcaa cttctgggtcc atggggctcc tagcactcta 300

cttctcaacg acgctgctga tgtggatatt cgggcccata ccgatgtctg tctgctcagt 360
gttcatggtg ttcattctac acatgctgga cagcaactcc ctgcccctgc accagta 417

<210> 9466
<211> 447
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-A2

<400> 9466

cggtctagta gtccgggccg acagacgaca gaagggacac atcttgctct tgctcttccc 60
cttgcccttat cccctttccc actccaaaat tgctgccgcc ggtagctccc atcagcttga 120
ttccctgatt cagtgccttg agcttgctcg tctcaccta cagccagccc cgcagcttga 180
ttcatttgtg cgcccatagc gtgaccttcg acggcggtg gtttgtctct tgatctctc 240
gtacgcctcc tcgggtctct cctaggctgg taaacgtcga tggagtggta ggagggccca 300
agggtgcagct gctcaaggga ggaggcgaga tcatcaatct gcacgatgtt gttgctgtca 360
atgtccgtgc aggtgatgtt ggcgtggatt tcgtctccca caactgcttt gatccatctt 420
tagtatcagg atggtggaga tgttttc 447

<210> 9467
<211> 420
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-A3

<400> 9467

ctgagaagaa aaaaaagggg atacctctag aagtctagat ctaggcctga cctgtagttt 60
cctgatcgtg ttgcctcga tctcggggta agctcagttc ggcgtccatg atttgttccc 120
atcaccggtt tggtatctga atcccaggtt tctccttctg atcggcgagt tggggcttgc 180
ggcgatcttg gagaaaagac gggaggcaag ctgcatctgc gcacggaagc ttccgatctg 240
cccggctggc gtctcagatc tgttgctgat ctgatgcttc acggcggatc tggttgttcc 300
cggcggtctc aagtcggcgc agcggctggc ggcgagtttt ccggcaagca cgtgggatcc 360
cgtctgctcc tctacctcgt gcgacgacgg ccaacggctc tttgtgttga taataattat 420

<210> 9468
 <211> 443
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB30-001-Q1-E1-A4

 <400> 9468

```

accggtctag taatcccggg cgcaccgaca gatcgaggac agctgcgggtg cacttgtcac   60
ctcaaccagc cgagcactcc tcctcctcgc cgtcgtcgtc tccgatccac taccgcttcc  120
gcagccatgg tgaacgttcc gaagacgggg aatacctact gcacgaacaa cgactgcagg  180
aaacacaccc tccacaaggt taccagtagc aacaaaggca aggacatgcc tttctgctca  240
cgggaagcgt cgttacgacc gcaagcagtc tgcataatgt ggccacacaa accctgtttt  300
caacaagaag gccaaaggcaa caaagaacat tgtgctgaag ctgcactgcc agacctgcaa  360
gcattttctca cagcgtgcc aacccaagt caagcacttt taaatccgtg gccacaagaa  420
cggccgtgga acatccctct tca                                           443
  
```

<210> 9469
 <211> 423
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB30-001-Q1-E1-A5

 <400> 9469

```

gacaccttca caaaacaatc catcgacttt ttcgggtgctc tgcgtgctcg ggtgtacgac   60
gacgacgtgc gcaagtgggt gacctctacc ggtatcgaga acattggcaa gaggctgggtg  120
aactcgcggg acggaccctg gacctttgag cagccaaaga tgacagtgga gaagctgcta  180
tagtacgggc acatgcttgt ccaggagcag gacaatgtca agcgtgtgca gcttgctgac  240
acctacatga gccaggcagc tctgggtgat gctaaccagg atgcgatgaa gactgggttcc  300
ttctacgggt agaacattct ccatacacac ccaccatctc ttgctgcata ggaggaggta  360
aaggggcaca gcaagggtact ttgcctgtac aagcacgatg caccgaccag actgccaaca  420
act                                           423
  
```

<210> 9470
 <211> 438
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB30-001-Q1-E1-A7

<400> 9470

aattcncggy ccgacacagg catctttgag cttctggcag tcgtatcgat cagctagacg 60
 cagtacaaca gccacattat cgacatcaag gttcaggcac aagatgcggt cacacataag 120
 cttcaacctt tctagaccat attgatccgc tgctgcaaata agatgctgga ccacggcatt 180
 tctttcagat ctgtcaagat catccattgt aggcaaggaa tcagtgtaaa cgaaatggag 240
 cagagcctcg aaaaccaccg gttccatgcy atcaacgggt atgtgccgca tcttggttctc 300
 cttcatgggt tcacttagct gcgctttgaa aactggcgac ctggcagaga gcactgccct 360
 gtgggcagga aacattttctc ctctaacttt gaaggtcaca tctgctctgg acttatcctt 420
 cagcatcttg ccaaaatg 438

<210> 9471
 <211> 404
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-A8

<400> 9471

ggaaggggcy gaattttctc acttgatgc caagtcgcct cctcccgatc cgcgtcccct 60
 ccctcgccaa gccacagct ctgagatttg ctaaacadat ggcttcaaata actggcaaga 120
 agctcattca gatcgacgtg agctcagata cagtgtgccc ttgggtgcttt gttgggaaaa 180
 ggaatcttga gaaagctatg gagcaaacca tggacaagtt cgatttcgag gttcgttggc 240
 atccattttt tttgaaccct gatgcaccta aggaaggtgt caagaaatct gatttctaca 300
 agaccaagtt tggccctgtg cagtttgagc gtgcaactgc tcgcatgaga gagatgttcc 360
 gaggacttgg ctttgaatat gacatgtcag gactcaccgg gaaa 404

<210> 9472
 <211> 319
 <212> DNA

tcagcaaggt tgggtttatc ttccgtgagc acaacgcac ccctgggtac aacaatggcc 120
 ggtactggac aatgtggaac ctgccaatgt cgggggtgcac cgaccccacc caggtattca 180
 acgaggtgga ggaggtcaag aaggagtacc ctgacgcgta tgtccgcac atcgattcg 240
 acaacatgcg ccaggtgcat tgcttcagct tcatcgctt caagccaccg ggctgccacg 300
 attccggcaa ggctaaaca gtcactcac cagggggcac atataaagtg ccattgccgt 360
 tttgtcaact ctgacattgc tttggg 386

<210> 9475
 <211> 457
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB30-001-Q1-E1-B11

<400> 9475

ccgggtcgac gaccactggc caccagatct acaagcttgg aggcattgac aagcgtgtca 60
 tcgagaggtt cgagaaggaa gccgctgaga tgaacaagag gtctttcaag tacgcgtggg 120
 tgcttgacaa gctcaaggcc gagcgtgaga gaggtatcac catcgatatt gctctctgga 180
 agttcgagac caccaagtac tactgcaccg tcattgatgc ccctggtcac cgtgacttca 240
 tcaagaacat gatcaccggt acctcccagg ctgactgtgc tgttctcatc atcgactcca 300
 ccactgggtg ttttgaggct ggtatctcca aggatggcca gacacgtgag cagccctcc 360
 ttgctttcac tcttgagtg aagcagatga tctgctgctg caacaagatg gacgcnaca 420
 ctcccaagta ctcaaagggg cgttatgaag aaattgt 457

<210> 9476
 <211> 436
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-B12

<400> 9476

tacggtctta tcttcccggg tcgacagatt gtataaaata ttatgtgcat gtgcatatac 60
 atagccaccg attgcattca catacgagca cgctttctcg agccatgttg ttacatgaac 120
 atggacatac acatattctt aggaacaagt aagagagaca aatggagaag gaaaacccaa 180

agcaatgtca gagttgacaa aactgcaatg gcactttata tgtggcccgt ggtgagtga 240
ctgttttaggc cttgccggac tcctcgcagc ccggtggcct gaaggcaatg aagctgacgc 300
actgcacctg gcgcattgtg tcgaatccga tgatgccgac gtacgcgtca gggtaactct 360
tcttgacctc ctccagctcg ttgatcacct gtgtggcgtc ggtggcaccg aacataggca 420
gcttccacat ttgtca 436

<210> 9477
<211> 278
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-B2

<400> 9477

ccgggccgac attgcaaagg ataaacaggg ccgtgccgca gacgtagttc caatagcaag 60
aggccctcct aagccagtcg gcaacacctg aaaaaatgcg tgttgtgctg atgcttgctg 120
cttaaaaaat aagtgtaaat aaagtagatt gcgatgctct tagagaaaag ccgatgtgta 180
attatgctga attttatgtt ttgcaagaac ataatttttt aatgtaatcg acgcgtaata 240
ttgtgtcgaa ttttatgttc tgcaagaaca acagatcc 278

<210> 9478
<211> 432
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-B4

<400> 9478

gggccgacta cctgatccac tacaagtggg tgccttgctt cgagttcagc aaggttgggt 60
ttatcttccg tgagcacaac gcatcccctg ggtactacga tggccggtac tggacaatgt 120
ggaagctgcc tatgttcggg tgcaaccgac ccacgcaggt gatcaacgag gtggaggagg 180
tcaagaagga gtaccctgac gcgtatgtcc gcatcatcgg attcgacaac atgcgccagg 240
tgcagtgcgt cagcttcacg gccttcaagc caccgggctg cgaggagtcc ggcaaggcct 300
aaacagctca ctcaccacgg gccacatata aagtgcatt gcggttttgt caactctgac 360
attgctttgg gttttccttt tccatttacc tttcttgttt gttcctaaga taagaatatg 420

tgtatgtcca tg

432

<210> 9479
<211> 436
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB30-001-Q1-E1-B5

<400> 9479

aattccccggg ccgacatgtg taaggaggatg cagtatctga atgaaatcaa ggactctgtt 60
gtggctgggt tccagtgggc atcgaaagaa ggtgctttgg ctgaggagaa catgcgtggc 120
atctgctttg aggtctgtga tgttggtctg cactctgatg ctattcacag gggtaggtggc 180
caggtcatcc caacagccag gagggtcatt tatgcttctc agctcactgc taagccaagg 240
ctgctggagc ctgtgtacct ggttgagatc caggccccgg agaatgcact tggcggatc 300
tatggtgttc tgaatcagaa gagagggcac gtgtttgagg agatgcagag gcctggtacc 360
ccgctgtaca acatcaaggc ttacctcncg gtcacgcagt cgttcggggt ctcaagtacc 420
ctcaaggctg cgacat 436

<210> 9480
<211> 440
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-B7

<400> 9480

aattcgcggg ccgacagacg aaagaagggg gttcatcca tcacatccag atcgaaacta 60
gaagcagagt aatcgagcta ggattgaaca gaggagggga ggaagaagct taggggggtgc 120
cggccatggc gagcctgatg gacaaggcca aggggttcgt cgccgacaag atcgcgcaca 180
tgcccaagcc ggaggcgtcg ctggacaagg tgaccttcaa gggcatgacc cgcgaggcca 240
tcaccgtgca cagccacgtc aacgtcacca accctactc ccaccgcac cccatctgcg 300
acatgcctt caacctcaag tgcggcggca aggaggtggc gagcggcacg atccccgacc 360
cgggctggat cgaggacagc ggcgaggtca ccaagctgga ggtgccggcc aaggtgcctt 420

acgacttccct catctctctc

440

<210> 9481

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-B8

<400> 9481

gactcgcgct tcgctctcag atcccttctc ctccgtctcg cccgcgtggt ggggtaggag 60

ccatggcgga ccagctcacc gacgaccaga tcgccgagtt caaggaggcc ttcagcctct 120

tcgacaagga cggagacggc tgcataacca ccaaggagct tgggaactgtg atgcgctcgc 180

tggggcagaa ccccaactgag gcagagcttc aggatatgat caatgaagtg gatgctgatg 240

gcaatggaac gattgacttt cctgagttcc tcaacctgat ggcgcgtaag atgaaggaca 300

ctgattccga agaggagctt aaggaggctt tccgcgtggt tgacaaggac cagaatgggt 360

tcactctggc agctgaactc agccatgtca tgactaacc 399

<210> 9482

<211> 395

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB30-001-Q1-E1-B9

<400> 9482

cgggtcgaca cttcccagg aaaaaccatc gactttttcg gtgctctgcg tgctcgggtg 60

tacgacgacg aggtgcgcaa gtgggtgacc tctaccggtg tcgagaacat tggcaagagg 120

ctggtgaact cgcgggacgg acccgtgacc tttgagcagc caaagatgac agtggagaag 180

ctgctagagt acgggcacat gcttgtccag gagcaggaca atgtcaagcg tgtgcagctt 240

gctgacacct acatgagcca ggcagctctg ggtgatgcta accaggatgc gatgaagact 300

ggttccttct acggttagaa cattctccat acacaccac catctcttgc tgcataggan 360

gaggtaaagg ggcacagcaa ggtactttgc ctgta 395

<210> 9483

<211> 417

<212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-001-Q1-E1-C11
 <400> 9483

```

gggtcgacag acgacataaa ggacaaatcg aggtctcttc cgtttttccc tgtggggcgg      60
aggttcctttg cctgggtgaca cccaaacctg aagcgaaccc acgctgttcg ccgacccgtc    120
cactgctgct cgggccagcc atgaggggtcc tcgcgttcct cctcctacta gggatctctg    180
ccgccgccac tgcattccct ccgccgctcg agaccctcgg catccctccg caagatgagg    240
cgtactacag gggcggcgtg atcaagtga gggacggatc gggcaagttc accagggatc    300
agctcaacga cgacttctgc gactgtcccg acggcaccga cgagccaggg acatccgcgt    360
gcccgagggc gaaattctac tgcaataatg ccggacattc tccaatcacc atcttct      417
  
```

<210> 9484
 <211> 442
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB30-001-Q1-E1-C12
 <400> 9484

```

cggctcttatn ttcncgggtc gacaccttcc caggacaatc catcgacttt ttcggtgctc      60
tgcgtgctcg ggtgtacgac gacgaggtgc gcaagtgggt gacctctacc ggtatcgaga    120
acattggcaa gaggtggtg aactcgcggg acggacccgt gacctttgag cagccaaaga    180
tgacagtgga gaagctgcta gactacgggc acatgcttgt ccaggagcag gacaatgtca    240
agcgtgtgca gcttgtgac acctacatga gccaggcagc tctgggtgat gctaaccagg    300
atgcgatgaa gactgggtcc ttctacggtt agaacattct ccatacacac ccaccatctc    360
ttgctgcata ggangatgta aaggggcaca gcaaggactt ttgcctgtaa cggcaggatg    420
caccgaccag actgccaaga ac                                             442
  
```

<210> 9485
 <211> 439
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-C2

<400> 9485

ccgggccgac cgagaagacg acaaaagggc atcgagtaga ccctgttatt gtgagaattc 60
ttaattcaag agttataggg agggacttat gtcaccacaa acagaaacta aagcaggtgt 120
tggatttaaa gctggtgtta aagattataa attgacttac tgcaccccag agtatgaaac 180
taaggatact gatatcttgg cagcattccg agtaagtcct cagcctgggg ttccgcccga 240
agaagcaggg gctgcagtag ctgccgaatc ttctactggt acatggacaa ctgtttggac 300
tgatggactt accagtcttg atcgttacaa aggacgatgc tatcacatcg agcctgttgc 360
tggggaagac agccaatgga tctgttatgt agcttatcca ttagacctat ttgaagaggg 420
ttccgttact aacatgttt 439

<210> 9486

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-C9

<400> 9486

cccggtcga caccttccca ggacaaacca tgcacttttt cggtgctctg cgtgctcggg 60
tgtacgacga cgaggtgccc aagtgggtga cctctaccgg tatcgagaac attggcaaga 120
agcttgtgaa ctgcgcccac ggaccagtga cctttgagca gccaaagatg acagtcgaga 180
agctgctaga gtacgggcac atgctcgtcc aggagcagga caatgtcagg cgtgtgcagc 240
ttgctgacac ctacatgagc caggcagctc tgggtgatgc taaccaggat gcgatgaaga 300
ctggttcctt ctacgggttag aacattctcc atacacacc accatctctt gctgcatagg 360
aggaggtaaa ggggcacagc aaggtacttt gcctgtgccg gcaggatgca ccgaccagac 420
tgccaagaac ttcgacccaa cggcgagg 448

<210> 9487

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-D1

<400> 9487

ccgggcccgc tacctgatcc actacaagtg ggtgccttgc ctcgagttca gcaaggttgg 60
gttcatcttc cgtgagcaca acgcatcccc tgggtactat gatggccggt actggacaat 120
gtggaagctg cctatgttcg ggtgcaccga cgccacacaa gtgatcaacg aggtggagga 180
ggtcaagaag gagtaccctg acgcgtatgt ccgcatcatc ggattcgaca acatgcgcca 240
ggtgcagtgc gtcagettca tcgccttcaa gccaccggac tgcgaggagt ccggcaaggc 300
ctaaacagct cactcagcagc aggccatata taaagtgccca ttgcagtttt gtcaactctg 360
acattgcttt gggttttctt tctccattta tctttcttat ttgttcctaa gaatatgtgt 420
atgtccatgt tcatg 435

<210> 9488

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-D10

<400> 9488

gggtccacgt agatgctgca aaaaggaatg gcatcgccat cggcaacacg cctggtgttc 60
ttactgagac gacggcggag ctagcggcat cgctgtcggg ggccggctgcc cggaggatcg 120
ttgaggccga ccaattgatg agggctggcc tctacgacgg atggctcccg cacctgtttg 180
ttgggaactt gctcaagggg cagactgttg gagtgatcgg agctggccgc atcggctcag 240
cttatgcaag gatgatgatt gaggggttca agatgaactt gatctacttc gacctgtacc 300
agtcacacg gctcgagaaa ttcgtcaccg cgtatggcca gttcctgaaa gccaatggtg 360
agcagcccgt gacatggaag agggcttcca gcatggagga ggtcctcagg gaggctgatg 420
tgataagcct gcaccaagtg ctggacaaga caacg 455

<210> 9489

<211> 335

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-D11

<400> 9489

gggtcgactc ggtgcttgta gatacccaag ggctttcagc aagagaaggt ggtgaccggc 60
aagatctcgg agatgcgata gtcgtcgtag ttgtagtggt ggtgcttgca ctgctagagt 120
tgtagaggaa cgcagcgtgc agcccaatcc tattatcaag ttgggctctg gtatgcaacg 180
gatgaaacgt ctgtgtaaag aactgtagtc tcaaggctctg tgtggtcagc taggtccgag 240
agtggtttgt gtgtcctcca gtcttcccat gggtaaattt ttttctcgcc ctgggtgcaa 300
attagacttt ggtgctgcgg ataaaacccg ttgtg 335

<210> 9490
<211> 435
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-D12

<400> 9490

gggtcgacac cttcccagga aaaaccatcg actttttcgg tgctctgcgt gtcgggtgt 60
acgacgacga ggtgcgcaag tgggtgacct ctaccggtat cgagaacatt ggcaagaagc 120
tggtgaactc gcgggacgga ccagtgcct ttgagcagcc aaagatgaca gtggagaagc 180
tgctagagta cgggcacatg otcgtccagg agcaggacaa tgtcaagcgt gtgcagcttg 240
ctgacaccta catgagccag gcagctctgg gtgatgctaa ccaggatgcg atgaagactg 300
gtaccttcta cggttagaac attctccata cacaccacc atctcttgct gcataggagg 360
acgtaaaagg gcacagcaag gtactttgcc tgtaccggca ggatgcaccg accagactgc 420
caagaacttc gacca 435

<210> 9491
<211> 445
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB30-001-Q1-E1-D2

<400> 9491

accggtctag cagtcccggg ccgacacctt cccagaacaa tccatcgact ttttcggtgc 60
tctgcgtgct cgggtgtacg acgacgaggt gcgcaagtgg gtgacctcta ccggtatcga 120
gaacattggc aagaagcttg tgaactcgcg ggacggacca gtgaccttg agcagccaaa 180

gatgacagtc gagaagctgc tagagtacgg gcacatgctc gtccggggagc aggacaatgt 240
 caagcgtgtg cagcttgctg acacctacat gagccaggca gctctgggtg atgctaacca 300
 ggatgcgatg aagactgggt cttctacgg ttagaacatt ctccatacac acccaccatc 360
 tcttgctgca tangangagg taaaggggca cagcaaggta ctttgctgt gccggcagga 420
 tgcaccgacc agactgccaa gaact 445

<210> 9492
 <211> 373
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-001-Q1-E1-D3
 <400> 9492

ccggtctagt agtccggggc gacggctaca gccaaaacta cagccagag gaatggtctg 60
 agtctggtga ccgctacgcc ggcggaacga ccgggcttct tatctgggcc gtcaccctcg 120
 ccggcctcct cggcgggcgc gtctctctcg tctacaacac cagcgctctc gccggctaag 180
 agagcatcta cgtgtaacac agggccgggt ctctgcttgc atgcacgtct ctgtaatctg 240
 cgtagctacc tcctgtgaat gtatgcaatc aacgatgcaa agtaattgat ccgaacagat 300
 ggtttatgtg tatgtacgta acgctgttac gatatacttc ctactttgga aactgtaaaa 360
 ggggtggattc tcg 373

<210> 9493
 <211> 356
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-001-Q1-E1-D4
 <400> 9493

cacggggaaa tcaaccaggt ctttactcgc cgcttctcgc tgctgccaac cgctggccgc 60
 cggccttgcc aacttccgct gccatccgta tcgagggccc tcggggacgc cagcaggggt 120
 gtgggggtgc tgctgatgtt tgctgcttct tctccttccc tctactagctt ctccgctcgt 180
 gttgctgct gccgccgact gataaactaa tccgtgaact gttgttgaag ggccgaatga 240
 gcaagactgc tgcaagatga aggtaacact ggcgaaacag caaatcatgg tccaggaaag 300

catatatgta cttattggcc atatccaggc atcttttggg cagtccgggtg tgttct 356

<210> 9494

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-D9

<400> 9494

gccctagaa acacttctct tcacccttca gttttgttaa ctctgcttca tctttcgcaa 60

ttgccaattc ggccttttca acttcctgat tccgaataac gacaccactt ttatatgtag 120

ctacgtgctt ctttaacttc tccctcgccg ccttgccagc ttcccagcat gtattcttgc 180

aagtgccatt gctaccgtat tcgtcactcc cgtcacagca atcgcatata ccatcattca 240

ctcgcgacga gaagatgggtg attggagaat gtccgggtatt cttgcagtag aatttcgcct 300

ccgggcacgc ggatgtccct ggctcgtcag tgccgtcggg acagtcgcag aagtcgtcgt 360

tgagctgatc ctggtgaact tgccgatccg tcccggcact tgatcacccg ccctg 416

<210> 9495

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-E1

<400> 9495

ctgatgaggg acttcaagcg gctgatgcag gaccctcctg cgggcataag cggggcgccg 60

caggacaaca acataatgct gtggaatgct gtgatttttg gccctgacga tagcccgtag 120

gatggaggca cgtttaagct gactctccag tttaatgaag aatatacctaa taagccacca 180

acagttcggg ttattttctcg gatgtttcac cctaacattt atgctgatgg aagcatatgc 240

ttagatattc tacagaatca gtggagccca atatatgatg tagctgctat acttacatct 300

atccagtcgc tgctgtgtga tcccaaccca aattcgctg ctaactcaga agctgcccgc 360

atgttcagtg agaacaagcg agagtacaac cgcaaagtgc gggagattgt 410

<210> 9496

<211> 457

<212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB30-001-Q1-E1-E11

 <400> 9496

 cggtcctatn ttccccgggtc caccatggcg gcagggaaat gttccatggc cacgccgacc 60
 ccgtcgtcca cgagctcaac aggctggaga atctcctcag agaaaaggaa cgagaactag 120
 gacacgcata cagtgaaata aaaggtctga aggtgacaga agctctgaag gacaaggcca 180
 ttgctgagct gagcaaggag ctgaagaaac aggacgagag gctgagcatc ctggagaagc 240
 agcttgagca gaagaatctg gatgtgaaaa ggatatgcaa tgagcgcaag gaagcgttgt 300
 ctgcacagtt cgctgccgag gcatcgctca ggaggatcca ctcggctcag agagacgagg 360
 aagtggttcc ctttgatgcc atcatagggc ccctggagtc tgacatcaag aagtacaagc 420
 atgagattgc ggtgctccag gatgacaaaa agggctc 457

<210> 9497
 <211> 271
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB30-001-Q1-E1-E12

 <400> 9497

ctctctcata agacccttgg gtggtggcca acctggaaga gtgaagcggga agaaccagaa 60
 gaaggcctca ggtggtggtg gtgatgacgg cgacgaggag gaagactaag cgcccagcct 120
 caccgcata actttcgttg cagaaatggt gagattgcct tgtggaactc ggaaatgatt 180
 caaactttcc ttcttagaaa cttaatggtg tagagctttc gttggttcag aatcttttgg 240
 ctgtcgggtc taàaattaaa cttatgtgtg t 271

<210> 9498
 <211> 385
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB30-001-Q1-E1-E2

 <400> 9498

aggatatgaa caagactgta gcaatcaata ctctctctga gtacatgatg cacctcctgg 60
tcaagcagccc tgacattctg ctcgtcaata cagattctcg gggattgatt gacaaagcct 120
ggactcttg cataccgctg tttgtatcat attctgcgga tgattatgac caggaattta 180
tggattacaa ggtataacct tctaagtact tggggctacc ataatacttt aatcaatata 240
ttgaacagga taaagaatat acttcccagg gcgaagccat gctggtgaaa gcaagcagca 300
ttgctcgcac aatgctatac atggatctgg ggctagtaga ttagatgggt ataaacggaa 360
caatgtgcac ggagatgttg tgcta 385

<210> 9499
<211> 450
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB30-001-Q1-E1-E3

<400> 9499

acgggtctagt agtccggggc gacacaggat ttcattcatta tcggcctata gccattggcc 60
atagtacaaa agatacttct cttttcccta taaccttttg ggcgacttcg gtgcaaagct 120
tgccacagag aagtatcatt gtgctgacga tctgggctga atgccgcaga atgcaacagc 180
tgcattcatc actacagaat ggttgattta aggggcagtt gaagcaactt ttgggtaatc 240
attatcgggc tgcgcttccc attctgtcca agatccgtcg taaactggaa cgtcatgctt 300
accgattcta tagaggccca gggcaagtat gcaggcagtt acaccagatc cacatgtgac 360
gacaatcggg tgatcgagca aaatgccttc ttgctcaaac ttttttgata gctcatctgc 420
agggaggagc gtntgtgcac catcaaacat 450

<210> 9500
<211> 156
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB30-001-Q1-E1-E4

<400> 9500

tcaangattt acacatggat anaaatgact actatggagg agattccacc tccctcaact 60

tgaaccagct ctggaagaag ttcagggggg aagaaaaacc accggcgcat ttaggtgcga 120
gcagagacta caatgtagac atggttccag aggttt 156

<210> 9501
<211> 301
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-E5

<400> 9501

aattcgcggg ccgacggcta cagcccaatc tacacgccgg aggaatggtc tgaatctggt 60
gaccgctacg ccggcggaac gaccgggctt cctatctggg ccgtcaccct cgccggcctc 120
ctcggcgggcg gcgtcctcct cgtctacaac accagcgctc tcgccggcta agagagcatc 180
tacgtgtaac acagggccgg gtctctgctt gcatgcacgt ctctgtaatc tacgtagcta 240
cctcctgtga atgtatgtca tcaacgatgc aaagtaattg attcgaacag atggtttatg 300
t 301

<210> 9502
<211> 425
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F1

<400> 9502

cccgggcggc catcgagcca gatgagcatg tcaagcaggc gatgaatgag atcaatgcag 60
ctgcaaggat gacggtggct gcaaacgaga aggcggaggc tgagaagatt gtccagatca 120
agcgtgccga gggatgaagca gaggccaagt acctgtctgg cctcggtatc gcccgccagc 180
gccaggccat tgtggatggc ctgagggaca gcgtcctggg cttctcagtc aatgtgcctg 240
gcaccactgc aaaggatgtg atggacatgg tgctgatcac ccagtacttc gatactatga 300
aagagattgg cggtcctcc aagtctcgg cggtgttcat ccccatggc cctggtgogg 360
tgcgcgacat cgccacgcag atccgtgacg gtcttcttca aggccagtct gcctctgaca 420
actag 425

<210> 9503

<211> 392
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB30-001-Q1-E1-F12

<400> 9503

catcgagtag accctgttat tgtgagaatt cttaattcaa gagttatagg gagggactta 60
 tgtcaccaca aacagaaact aaagcaggtg ttggatttaa agctggtggt aaagattata 120
 aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatcttg gcagcattcc 180
 gagtaagtcc tcagcctggg gttccgcccg aagaagcagg ggctgcagta gctgccgaat 240
 cttctactgg tacatggaca actgtttgga ctgatggact taccagtctt gatcggtaca 300
 aaggacgatg ctatcacatc gagcctgttg ctggggaaga cagccaatgg atctgttatg 360
 tancctatcc attagaccta tttgaagagg gt 392

<210> 9504
 <211> 420
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F2

<400> 9504

ccgggccgac actgtcacia aacaacacat cgggattgcc actgtgctgt ctccaccagt 60
 ggcatagaac tcggtacata gttcagtaat agcaacagat aggtctacat actagtacia 120
 acggtataac gatggatcaa gtgttcctgt cgtgatttgc agccgaaata gaatgtccat 180
 aaccgacaac agcatcgacc gaagattcta gatcagaagg acaatgtcat gtctaagggtg 240
 ctgtccgtgc catatgttct caatgcaact cgttgtcacc tttggaaaac tacattgaaa 300
 gtcggtccaa ccaacgtaac tgcaatctag acacatcgtg cttaactoga gatgtggaat 360
 atcacctttt aggtcgtatg actgctgctg tcgttcagca ggatgatgac acacgtagac 420

<210> 9505
 <211> 432
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F5

<400> 9505

aattcgccgg cgcacaacaa caatgaccct caatagcttg aggatgctag tgatgaaaga 60
cttggcgtgt tgcaccaaac ttcctgatgg attatgtcag ctcccatggc tagagtacct 120
gaaagtcaac tgtgctccag cgatcaagtg cattggggcca gaatttgtgc gtccccagag 180
ccaccgttgc tatecttcat cctgcatggg gactgcattt ccgaggttgc atgagatgga 240
tttattagaa ttggtggaat tggaggaatg ggaatgggat gaggaagtgc aagctatgtc 300
agtcatgggt gagcttactt tcacaagatg taatttgaag tgtatccctc ccggtcttgc 360
ctcacatgca aaggctttga taaagttaac cttgtggagc atgtggcgtc tccattcgct 420
agagaacttt gc 432

<210> 9506

<211> 380

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F8

<400> 9506

catcgagtag accctgttat tgtgagaatt cttaattcaa gagttatagg gagggactta 60
tgtcaccaca aacagaaact aaagcagggt ttggatttaa agctggtgtt aaagattata 120
aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatcttg gcagcattcc 180
gagtaagtcc tcagcctggg gttccgcccg aagaagcagg ggctgcagta gctgccgaat 240
cttctactgg tacatggaca actgtttgga ctgatggact taccagtctt gatcgttaca 300
aaggacgatg ctatcacatc gagcctgttg ctggggaaga cagccaatgg atctgttatg 360
tagcctatcc attagaccta 380

<210> 9507

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F9

<400> 9507

tacggtcgta tttccgggtc gccccgacga atcagtagag aatttgaagg cgcttcttga 60

ggtggagact caagtgccgt tgcagcagca gctgcttcat ttcaatggca aggagatgaa 120
 caatgctgag aagctcagcg ccatcgaggt cgatgatggg gatcttgtga tgatgggtgc 180
 ctccaataat aggacatctc aggatattat gaggttaaata cctgatggat cggcagtaaa 240
 tcctcaagct ttccaacaac atattcgtgg cgattcaciaa cttatggcgc aactccttca 300
 gaatgaccct tcattagctc aagccatcct tggagatgac accactgagt tgcaaaacat 360
 cttgcggtca caccaccaac aaagactaca actgaaacgc agacaggaag aagagcttgc 420
 cttattgtat gccgattcat ttgatgt 447

<210> 9508
 <211> 237
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G10

<400> 9508

ttcccaggaa gatccatoga ctttttcggt gctctgcgtg ctgggtgta cgacgacgag 60
 gtgcgcaagt ggggtgacctc taccggtagc gacaacattg gcatgacgcg tgtcaactcg 120
 cgggagggac tgggtgacctt tgagcagcca aacatcacac tcgggaagct gccagactac 180
 gggcacatgc gcatccagga gcaggacaat gtccagcctg tgcagcttgc tgacacc 237

<210> 9509
 <211> 420
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB30-001-Q1-E1-G11

<400> 9509

tacggtctta tcntccgggt cgacaccttc ccaggaaaat ccatcgactt ttccggtgct 60
 ctgctgtctc ggggtgtacga cgacgaggtg cgcaagtggg tgacctctac cggtatcgag 120
 aacattggca agaagcttgt gaactcgcgg gagggaccag tgaccttga gcagccaaag 180
 atgacagtcg agaagctgct agagtacggg cacatgctcg tccaggagca ggacaatgtc 240
 aagcgtgtgc agcttgctga cacctacatg agccaggcag ctctgggtga tgctaaccag 300

gatgcatga agactgggtc cttctacggt tagaacattc tccatacaca ctccagcatct 360
 cttgctgcat acgaggaggt aaagggggcac agcagagtac ttgacctgtg ccggcaggat 420

<210> 9510
 <211> 289
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G12

<400> 9510

tgatccgatc aaagtgggtg ccctgcctcg agttcagcaa cgttggcttc gtcttccgtg 60
 agcacgacat cccccccggg tactacgacg gccgatactg gactatgtgg aagctgccta 120
 tgtgggggtg cgctgacgcc acacaggtgc ggaaggaggt ggatgaggtc acgagggagt 180
 accccgacgc ctatgtccgt gtccctcggct tcgatcgctt gggccccgtg cagtgcgtcc 240
 gcttcatgcc cttcacgccc ctgcgtttgc gacgagtccg ggcgtggcc 289

<210> 9511
 <211> 376
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G2

<400> 9511

agtaccagaa cgggtggctgc ggccgggttg gcaaaggcaa cttctccgag ctgttcaagt 60
 ccattgagga ttatgagaaa tcccttgaag ccaagcaatc tgctgcagtt caggcatcat 120
 aggatagaag ctggaattgg agccggagaa gctgatccag tgctttttta catggtctca 180
 tggagcacia gaaacaatgt tcattgtaat atgcgacgca caattatatc cgatgttata 240
 attggtgaag ctgaagacag atgtatccta tgtaaaaaaac aacgcagcaa cgaacattag 300
 agaaaaaacg cagaagcgaa cagaaaacaa aaaaaaccga agagattcgg tagcaaccaa 360
 aaaaaaaaag cggccg 376

<210> 9512
 <211> 447
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G3

<400> 9512

acgggtctagt agtccggggcc gactttgtgt tcaactaggt gctgaaaaag tttatcgaga 60
gttttctact attcttcaga ctgaagggtga ccttgatttt gcctccacca tgggttcaggc 120
attgaatttg attttgctca catcgagtga acttgcgagg ctgcggtctc ttcttaaaaa 180
gtcattggtg gatacttgtg ggaaggactt atttctatct ttatacgctt cttggtgcca 240
ctctccaatg gctacaatca gcttgtgctt acttgctcag gcatacaatc atgcgagttc 300
tgttattcag tctctgggag aagaagacat aaatgtgaag tttctggtgc agctagataa 360
attgatccgt ctattagaga ctccagtatt tgcttacttg cgtttacagc ttcttgagcc 420
tgaaaaacac acttggcttc tgaaaac 447

<210> 9513

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G4

<400> 9513

attttttagca atgagaaact tccagaagta gttgctgaag ctgtcaatag atactggtcc 60
actctgaaga ttatctttga tcatcgggca tgggatacac ggaccatgga gtctctatgc 120
cgatcttgca aatttgctgt aaggacatgt gggagggtcca tgggaatcac cattggtgca 180
atgctgctag aaatccaaac actatatcag caacacaatc agtcttgctt cctttactta 240
tccagtgaag ttattaagat atttggatct gatccatctt gtgcgagtta tcttacatgt 300
ctgatacaga cactctttaa tcatacaata caactgctca gaactattca agattttaca 360
gctagaccgc acatagctga tgattgcttt ctgcttgctg caagatgt 408

<210> 9514

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G7

<400> 9514

gtaccgtact agaattcgcc ggccgactac ctgatcaact ccaaattgggt gccttgccctc 60
gagttcagca aggttgggtt catcttccgt gagcacaacg catcccctgg gtactacgat 120
ggccggtact ggacaatgtg gaagctgcct atgttcgggt gcaccgacgc cacacaggtg 180
atcaacgagg tggaagaggt caagaaggag taccctgacg cgtacgtccg catcatcgga 240
ttcgacaaca tgcgccaggt gcagtgcgtc agcttcatcg ccttcaagcc accgggctgc 300
gaggagtccg gcaaggccta aacagctcac tcaccacggg ccacatataa agtgccattg 360
cggttttgtc aactctgaca ttgctttggg ttttccttct ccatttatct ttcttgtttg 420
ttcctaagaa tatgtgtatg tccatgttca tg 452

<210> 9515
<211> 466
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G9

<400> 9515

taccggtcct gagcgtccgg gtcgacatgt cgagaaagag aggatcatca acttcctact 60
gcatgatggt ggtccatcaa ctggggggaa actgggtgtg ctcccgattg ttggcagcat 120
gggagtcggg aagaccaccc ttgcgcagca tgcggcgat gatgagaggg tgcgcaacca 180
cttcccaata attttgtatt ccaatttctc atacaccaga gcaatggctc gggatgaggc 240
ggtgtttgtt cttggatcca aacacacagt tggagatgct caaaaattca tcgagtcact 300
acatgtactt aaggagaaat gcctcaccaa gaggttcttg atggtatttg aagatgttga 360
catgggcaaa aaacagatgc tagaagagtt actgccaatc ttgagacatg gcagattcgg 420
gagcaggatc ataatcacca cagacaacgg ggatgtcgcc agcttg 466

<210> 9516
<211> 148
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H11

<400> 9516

tccgcccacg cctctgtacc gccgcatatg acgacggaac gcggagaaga gatcgctaaa 60

cgaatacttt gatcatcgtg tgacaacaat aacggctgct tcaactgatgc gggcgctctgt 120
gacattgaga ccagctgggt tcacgggt 148

<210> 9517
<211> 368
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H12

<400> 9517

gagaagacga aagaagggga gatcaaggag ctccgctaca gccctgactc ggagatccaa 60
accaggatt cctgagctcc tcatacctac aaattattag gtcgtgcttt tcggcttcct 120
tctgtctcgg tagctttccc catttattgc aaccttctca aatctcaaga ttccaactgg 180
tcaaggaagt gaagaacaag gacagaagga catggatgcc ttaagttcaa tgctcgacaa 240
ggcgaaagac aaggtgaaaa gcaaccctga tgtgatggag aaagtcagtt cggtcctcga 300
caaggttaag aaccaccag aagtcatgga gaaagttgct gaagttttac atctgggaaa 360
acgtgaat 368

<210> 9518
<211> 427
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H2

<400> 9518

tctcagaaca aaccatcgac tttttcgggtg ctctgcgtgc tcgggtgtac gacgacgagg 60
tgcgcaagtg ggtgacctct accggtatcg agaacattgg caagaagctg gtgaactcgc 120
gggacggacc agtgaccttt gagcagccaa agatgacagt ggagaagctg ctagagtacg 180
ggcacatgct cgtccaggag catgacaatg tcaagcgtgt gcagcttgct gacacctaca 240
tgagccaggc agctctgggt gatgctaacc aggatgcgat gaagactggg accttctacg 300
gttagaacat tctccatata caccacccat ctcttgctgc ataggaggag gtaaaggggc 360
acagcaaggt actttgcctg taccggcagg atgcaccgac cagactgcc aagaacttcga 420
cccaacg 427

<210> 9519
 <211> 438
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H3

<400> 9519

tccccgggccc actacctgat ccaactcaaag tgggtgccct gcctcgagtt cagcaagggtt 60
 ggcttcgtct tccgtgagca caacagctcc cccgggtact acgacggtcg atactggaca 120
 atgtggaagc tgcccatgtt tgggtgcacc gacgccacac aggtgctcaa cgaggtggag 180
 gaggtcaaga aggagtaccc tgacgcctat gtccgtgtca tcggcttcga caacctgcgc 240
 caggtgcagt gcgtcagctt catcgccctt aggccaccgg gttgcgagga gtccggcaag 300
 gcctaaacta cgagttgaaa caatggccta tctcgatga aggccttttg tgaacttcac 360
 ttttgtccac aactctgtg cagcactctg ctttcggacc ggagcatacc ttttgttcta 420
 tatgatttgt gtatgtat 438

<210> 9520
 <211> 367
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H4

<400> 9520

catcgagtag accctgttat tgtgagaatt ctaattcaa gagttatagg gagggactta 60
 tgtcaccaca gagagaaact aaagcacgtg ttggatttaa agctgggtgtt aaagattata 120
 aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatcttg gcagcattcc 180
 gagtaagtcc tcagcctggg gttccgccc aggaagcaag ggctgcagta gctgccgaat 240
 cttctactgg tacatggaca actgtttgga ctgatggact taccagtctt gatcgttaca 300
 aaggacgatg ctatcacatc gagcctgttt ctggggaaga cagccaatgg atctgtaatg 360
 tagctta 367

<210> 9521
 <211> 438
 <212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB30-002-Q1-E1-A3

<400> 9521

```
ccgggccgac tacctgatcc actcaaagt ggtgccttgc ctcgagttca gcaaggttgg   60
gtttatcttc cgtgagcaca acgcatcccc tgggtactac gatggccggt actggacaat  120
gtggaagctg cctatgttcg ggtgcaccga cgccacgcag gtaatcaacg aggtggagga  180
ggtcaagaag gagtaccctg acgcgtatgt ccgcatcatc ggattcgaca acatgcgcca  240
ggtgcagtgc gtcagcttca tcgccttcaa gccaccgggc tgcgaggagt ccggcaaggc  300
ctaaacagct cactcaccac gggccacata taaagtgcc a ttgcggtttt gtcaactctg  360
acattgcttt ggggttttcc tttccattta tctttcttgt ttgttcctaa gataagaata  420
tgtgtatgtc catgttac                                     438
```

<210> 9522

<211> 424

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB30-002-Q1-E1-A4

<400> 9522

```
ccgggccgac tacctgatcc aactccaagt ggggtgccttg cctcgagttc agcaaggttg   60
ggttcatctt ccgtgagcac aacgcatccc ctgggtgcta tgatggccgg tactggacaa  120
tgtggaagct gcctatgttc ggggtgcaccg acgccacaca agtgatcaac gaggtggagg  180
aggtcaagaa ggagtaccct gacgcgtatg tccgcatcat cggattcgac aacatgcgcc  240
aggtgcagtg cgtcagcttc atcgcttca agccaccggg ctgcgaggag tccggcaagg  300
cctaaacagc tactcacga caggccatat ataaagtgcc attgcagttt tgtcaactct  360
gacattgctt tgggttttcc ctctccattt aactttctta ttggttcta agaatatgtg  420
tatg                                             424
```

<210> 9523

<211> 207

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB30-002-Q1-E1-A5

<400> 9523

acctcatcag tcacatgcac agcaccaagt aaatgagagg catacagggg agagtgggttt 60
gccccagagg agtgttcaaa gcctcttctt ctgagaataa atttttgtat ggaactatgt 120
cagctaaaaa ccttttattg gatgtatcct gatgggttggg tgggcttagc ggctcacatt 180
ttggtgggtat tatgtacttg cttgaac 207

<210> 9524

<211> 374

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-A7

<400> 9524

ccgaccacca aaatgattgt gaagcctgac atgctgttcg ggaagcgtgg gaagagtggc 60
cttgtggtac tcaacctgga ttagcccaa gtcaaggagt ttgtgaagga gcggttggga 120
gtcgaggtcg agatgggtgg ctgcaaagct ccaattacca ccttcatagt tgagccgttt 180
gtccccacg atcaagagta ctaccttca gttgtgtccg aaaggttggg tagcaccatt 240
agcttctcgg aatgtggagg cattgaaatc gaggagaact gggacaaggg taagacagtc 300
tttcttccga ctgagaagcc aatgacacct gatgcttgtg ctcccttgat tgcaaccctt 360
ccactggacg cacg 374

<210> 9525

<211> 247

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-A8

<400> 9525

tcaccaaggt cgggttcacg gtccgtgagc acaattcatc ccctgggctg cttcatggtc 60
ggtactggag aatgtgtgac ctgcgtaagt tcgggtgcac cgacgcaaaa caacttatca 120
acaacgtgga tgaggtaag aaggagtacc ccgatgcgta tgtccacatc atccgcttcc 180
acaacatgcg ccagggtcag tgcgtcagct tcagcacctt catcccaccg ggttgcgacg 240

agtccgg

247

<210> 9526

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-A9

<400> 9526

cgggccgact cgcagggcat ctgcatgaac ataaacgggt gggagaatat gatcttcatt 60
ggcatcaacg ctgctatcag tggtcgagtc tccaatgagc tgggcgcagg ccgtccaatg 120
gcagccatgc acgctgtcat cgtcatcatt gccgagtcgc tgctcatcgg gctgctatgc 180
atggtcctcg tottgatctt cagagataac ttgccatca tctacagcac cgatttggag 240
ctccagcatg ccgtctccaa gatcgccgga ctccctgggt tgaccatggt gctcaacagc 300
gtgcagcctg tggtttcagg ggttgctgtt ggacgacgat ggcaaggcct tgttgcatatc 360
atcaacctaa gctgctacta cgttctcgga ttgcccttgc gctaccttct cggctacaag 420
ttcaac 426

<210> 9527

<211> 374

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B1

<400> 9527

tccgggtcga cggctacagc cacatctaca cgccagagga atgggtctgaa tctggtgacc 60
gctacgccgg cggaacgacc gggcttctta tctgggccgt caccctcgcc ggctctctcg 120
ggcagggcgt cctcctcgtc tacaacacca gcgctctcgc cggctaagag agcatctacg 180
tgtaacacag ggccgggtct ctgcttgcat gcacgtctct gtaatctaca tagctacctc 240
ctgtgaatgt atgcaatcaa cgatgcagag taattgatcc gaacagatgg tttatgtgta 300
tgtacgtaac gctgtaacca tatacttctt actttggaaa ctgtaaaaag ggtggattct 360
tggagccccg taaa 374

<210> 9528

<211> 433
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB30-002-Q1-E1-B10

 <400> 9528

```

atgccccgggc cgacggttga aacgccggcg tacatcgccc cggaggtggt ctccccgccgg 60
gaatacgacg gcaagacagc cgatgtgtgg tcttgtggag tgacccttta tgtgatgcta 120
gtcgggtggtt acccttttca ggatcctgat gacccaaga acttcagaaa gaccattggg 180
agaataatgt caatccaata caaaatacca gagtacgtcc atgtatcca agactgcaag 240
caactccttg ccagtatttt cgtcgcaaac cctgcaaaga gaataacaat gagggagatc 300
aggaaccacc cctggttctt gaagaacttg ccaagagagc tcacggaagc tgccaagca 360
atgtactaca agagagacaa cagcgccccg acctactcgg tccagtccgt ggaggagatc 420
atgaagatcg tgg 433
  
```

<210> 9529
 <211> 409
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB30-002-Q1-E1-B11

 <400> 9529

```

ccccgggccga caccttccca agacaatcca tcgacttttt cgggtgctctg cgtgctcggg 60
tgtacgacga cgaggtgcmc aagtgggtga cctctaccgg tatcgagaac attggcaaga 120
ggctggtgaa ctcgcgggac ggaccctga cctttgagca gccaaagatg acagtggaga 180
agctgctaga gtacgggcac atgtttgtcc aggaccagga caatgtcaag cgtgtgcagc 240
ttgctgacac ctacatgagc cagcgagctc tgggtgatgc taaccaggat gcgatgaaga 300
ctggttcctt ctacggttag aacattctcc atacacaccc accaactctt gctgcatacg 360
aggaggtaaa tgcgcacagc aatgtacctt gcctgtatcg gcaggatgc 409
  
```

<210> 9530
 <211> 404
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB30-002-Q1-E1-B12

<400> 9530

ggcgtccaga cacaatctta ccggcgacgc ctcgcgacct cctcagctcc tctccccctt 60
cgccgccgct gccaccacgg ggaccgcgtc tgatcccgtc agttgtagaa gtaactgatt 120
agcctgatgg ctatggtcga tgagcctctc tatccaattg ccgtgctgat agatgagctt 180
aaaaatgaag atattcaatt gcgcctgaac tccatcagaa gactttccac tattgcacgg 240
gcacttggag aagaaagaac caggaaggaa ctgattcctt tcctcagcga aaacaatgat 300
gatgaagatg aggtgcttct tgcaatggct gaagaattgg gtgtgttcat tccttatgtt 360
gggggtgtag agcatgctca tgttttgctc ncaccattgg agac 404

<210> 9531
<211> 442
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB30-002-Q1-E1-B3

<400> 9531

gggccgacac cttcccagaa caatccatcg actttttcgg tgctctgcgt gctcgggtgt 60
acgacgacga ggtgcgcaag tgggtgacct ctaccggtat cgagaacatt ggcaagaagc 120
tggtgaactc gcgggacgga ccagtgcctt ttgagcagcc aaagatgaca gtggagaagc 180
tgctagagta cgggcacatg ctcgctccagg agcaggacaa tgtcaagcgt gtgcagcttg 240
ctgacaccta catgagccag gcagctctgg gtgatgctaa ccaggatgcg atgaagactg 300
gtaccttcta cggttagaac attctccata cacaccacc atctcttgct gcataggang 360
aggtaaaggg gcacagcaag gtactttgcc tgtaccggca cgatgcancg accagactgc 420
caagaacttc gaccaacgg cg 442

<210> 9532
<211> 445
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB30-002-Q1-E1-B4

<400> 9532

ccgggtcgac accttcccag aacaatccat cgactttttc ggtgctctgc gtgctcgggt 60
gtacgacgac gaggtgcgca agtgggtgac ctctaccggt atcgagaaca ttggcaagag 120
gctggtgaac tcgcgggacg gacccgtgac ctttgagcag ccaaagatga cagtggagaa 180
gctgctagag tacgggcaca tgcttgtcca ggagcaggac aatgtcaagc gtgtgcagct 240
tgctgacacc tacatgagcc aggcagctct gggatgatgct aaccaggatg cgatgaagac 300
tggttccttc tacgggttaga acattctcca tacacacca ccatctcttg ctgcatagga 360
ggaggtaaag gggcacagca atgtactttg cctgtnacgg caggatgcac cgaccagact 420
gccaagaact tcgaccaaac ggcga 445

<210> 9533

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B6

<400> 9533

attcgccggt cgacgaccct catcagactc gtcgcttcac aggcttgtgg tcagcttgac 60
tgatatcaaa caatggcgga acacttggtc tcgatatttg gtacagagaa agacagggtc 120
aactgtccat tttacttcaa gattggagct tgcgctcatg gcgatcgctg ctctcgcatc 180
cataacaggc caaccatata acctactatt gtgctcatga acatgtatca gcgccttgat 240
atgattacc cttggggttga tgctcaaggc cagccgatag atcctcgcaa gatgcaggag 300
cattttgaag atttttatga ggatatcttt gaggaactga gcaagtttgg tgagattgag 360
accctcaacg tctgtgacaa cttttctgat cacatgatag gcaatgtgta tgtccagttc 420
agagaggaag atcaggcagc agcagctcat a 451

<210> 9534

<211> 295

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B7

<400> 9534

gggcgtatct aggggtttttt tacctccgcg ctccgcctgc ccacacacgg ttccgtccag 60
aagcttctag acacttccag tcggaggagg agctcacgcc gcagcagcag ccatggcgtc 120
caccaaagtc cagcgtatca tgaccagcc catcaacctc atctttcggg tcctcagagc 180
aaagcgcgca tccagatctg gcttttcggg cagaaggata tgcggatcga gggtcgtatc 240
atcggccttg atgagtacat gaacctgggt ctcgaggatg ctgaggaaat caaca 295

<210> 9535
<211> 412
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B9

<400> 9535

cccgggccga ctatgtacag acacagagag cgcgaggtag gctgatcagg gaggtccagg 60
agagcttcac ggttgacgcg ttcacgcgca acgcgaccga ctgggagctc gtttgtctgg 120
gaaacctcgt ggggttgccc atcgtcgtgg tgcctacggg cttcaagagc atcgaacacc 180
caccaaaagg caacacgagg agacgaacca cagtgcgcac gggcatatat gctccccctg 240
accatgacca cattgctcta gcgttggcga tggcgatca gtccgtcacc gatcaccaca 300
atcaacggcc accgattgac gcaaactaca acatacaca gtgattagcc ggctgatgaa 360
atggtattga cactgacact ccgtgtgctg tttcacttga gacaatgaaa ta 412

<210> 9536
<211> 349
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C1

<400> 9536

ggatctaaca caaccatcat atccatatcc agcccaacaa atggcgccctc tcaaggtgac 60
tggtgcatg tgtgtcgtgc tggtcctgat gatccagctg caggcgccgg cggctgcgca 120
ggagatacca tgcgaccagt gcgggcccgg atgcgccag gcgtgcaatg cgcagggccc 180
ctacttctgc aacagcttct gcaacatctt tcccaccctg tgcaactact gcttcctcat 240
ccaatccggc ttgtgcattc gcgagtgcgc aaacctctgc aggtcaact gcgagttgat 300

gaccatgcac gaacgcatcg acatgcatgg attccagggt gtccatgag

349

<210> 9537

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C11

<400> 9537

aattcccggg ccgacatcga accaaatgcg catgtcaagc aggcgatgaa tgagatcaat 60
gcaggttatt tgctaaaggc cttatgtgat gaaagttgga cgcttgact taaatctggc 120
ctccatcata ctactgacat gatacttggt ccttttgcag ctgcaaggat gaggggtggct 180
gcaaacgaga aggcggaggc tgagaagatt gtccagatca agcgtgccga ggggtgaagca 240
gaggccaagt acctgtctgg cctcggatc gcccgccagc gccaggccat tgtggatggc 300
ctgagggaca gcgtcatggg cttctcagtc aatgtgcctg gcaccactgc aaaggacgtg 360
atggacatgg tgctgatcac ccagtacttt gatactatga aagagattgg cgcgtcatcc 420
atgtcctctg cggtg 435

<210> 9538

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C3

<400> 9538

ccgggccgac caccactggc aatatgatct acaagcttgg aggtattgac aagcgtgtga 60
tcgagaggtt cgagaaggaa gccgctgaga tgaacaagcg gtcgttcaag tacgcctggg 120
tgcttgacaa gctgaaggcc gagcgtgaga ggggtatcac cattgatatt gccctgtgga 180
agttcgagac caccaagtac tactgcaccg tcattgatgc ccctggtcac cgtgacttca 240
tcaagaacat gattactggg acctcccagg ctgactgtgc tgtgctcatc attgactoca 300
ccactggtgg ttttgaggct ggtatctcca aggatggcca gaccctgag caccgctcc 360
ttgctttcac tcttgagtg aagcagatga tctgctgctg caacaagatg gatgccacca 420
ctcctaagta ctcgagggt cggtatg 447

<210> 9539
 <211> 339
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C4

<400> 9539

cgggctcgaca ataatttgta tgcaccacca agagagacga ctggacagaa gtggaacatc 60
 cagcacccaa gacgtgtcgt gtattgttgt gaggtgatat tgtaactgta agctagatac 120
 tacacaagag tgggtccggt ccctctgtcg ctagggaat agcgtcgctt tgtcttgttt 180
 taccacaaca aggatgtttc tatatgatgt acaagatata cacacattgc tgggtgctgtt 240
 gctgttgtgg aagtgaagga cctgctgttc gtcgccgtgc caagttgggt taaaagggt 300
 caaagttgtt gggtttgtca cgcaacctga atgtttggt 339

<210> 9540
 <211> 344
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C5

<400> 9540

attcccgggc cgacctgaag gcaaacaaaa aaaagatcaa ggctgccgtg aaaaagatgt 60
 acgacatcca ggccaagaag gttaacaccc tgatcaggcc tgatggcaag aagaaggcgt 120
 acgtgaagct gacaccagac tatgatgctc ttgacgtggc caacaagatc ggcatcatat 180
 aagtcagagg gacggctcctg cagtaggcgc ttgtgtcgtg gtttcttatg ttattggagt 240
 tttgtagttg ttacttagca aaggggtcga gtggctccat tgcctaccat atcgccgcgc 300
 actttcatga atttgatgca atcgaagtga cttgtgttga tgcc 344

<210> 9541
 <211> 354
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C6

<400> 9541

gactcttcac atgatacctca ggctcagggg cggtactatg atcaaggtta agactctcac 60
 tgggaaggag atcgaaatcg acattgagcc caccgacacg attgatagga tcaaggagcg 120
 tggtgaggag aaagaaggca ttcctcctgt gcagcaaagg ctgatttatg ctggtaagca 180
 gcttgagat gacaagactg ccaaggacta caacatcgaa ggtggctcgg tcctccatct 240
 tgctcttgct ctgaggggtg gttactagtt aagctgtaat ggaaacgctt gcgtcctgag 300
 agaagtgacc attggtggca tggaacctgt gttgcaaaga aataataaca aact 354

<210> 9542
 <211> 331
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C7

<400> 9542

acggctacaa ccagatctac acgccagagg aatggctctga atctgggtgac cgctacgccg 60
 gcggaacgac cgggcttctt atctgggccg tcaccctcgc cggcctcctc ggcggcggcg 120
 tcctcctcgt ctacaacacc agcgctctcg ccggctaaga gagcatctac gtgtaacaca 180
 gggccgggtc tctgcttgca tgcacgtctc tgtaatctac atagctacct cctgtgaatg 240
 tatgcagtca acgatgcaaa gtaattgatc cgaacagatg gggttatgtgt atgtacgtaa 300
 cgctgtgacg atatccctcc tacttttgaa a 331

<210> 9543
 <211> 334
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C8

<400> 9543

acagcgggag gtagatctgg tgatagctcc cctaataagc tcgaatcttt ccctgatctg 60
 gaggatctcc gtcgccttgt tccatttggt cgctcgctgtc gtggagatgg ggacagaaag 120
 tggaagaggt ggagcgcaag tttgtttcga ttgggtttgt gcatattctc atcgggtgctt 180
 ggagtggagc tacggcgccc actggagctg ccggctctccg acgcctcccc ggtgaccttt 240
 ctggccgaaa ggcggcctgg tgaagccgct tcgtttcttc ctctgggctt gattccattt 300

gagatgcggc tgttcaactt caacatggag tcct

334

<210> 9544

<211> 317

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-C9

<400> 9544

catctagtag accctgttat tgtgagaatt cttaattcaa gagttatagg gagggactta 60
tgtcaccaca aacataaact acagcacgtg ttggatttaa agctgggtgtt aaagattata 120
aattgactta ctacacgccc atagtatgaa actaaggaga ccgatatctt ggcagcattc 180
cgagtaagtc ctcaacctgg ggttccgccc taataaccac gggctgcact acctgccgaa 240
tcttctaattg gtccattgac aactgtttgg acttattgac ttaccactca tgatcgtcac 300
aaaggacaat gctatca 317

<210> 9545

<211> 376

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D1

<400> 9545

acggtctagc tatccccgggt cgacgtgcgc acgatgggtc tgggattggg agcgccgttc 60
ttctctctcg tcttctctt gctggccgcc ggctctggag ctatgccgca ggacaagagg 120
attcacagga attatgttct tctcgatctc gatacaattg agatccgccc aaatggcaag 180
gaggaaatta gttctagcaa aattcatgtc tctgttgaga gtggcagcac aatatgtctca 240
acttgcgaga acttgacaaa taaagctgtc agttatctta gtgagaaaca aacacaagat 300
gagatcatgg agattcttca tggtgccgtg tctcagacat tctccttaga acagaagtgt 360
cctgagatgg tggact 376

<210> 9546

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D11

<400> 9546

atgcccgggc cgacgagatt tacaagggtg catcaatcgc gctgagtcca aatgttcctg 60
ggcagatctt tatggggctt atggtgaacc ctctaaacc tggagacatc tcgtacctga 120
agtactctgc tgaaagtaag tctatccttg aatctttaag gaggagggca caaataatga 180
cagacggttt caatagttgc cgaaatgttg tctgcaattt cacagaagga gctatgtatt 240
ctttcccgca aatacggctg ccgcagagag ctatggatgt agcacagagc gctggcagaa 300
cgcacgatgt ttactactgc ctgaggcttc tggaatctac tggaatttac actgttccaa 360
gctcaagttt tggtc 375

<210> 9547

<211> 398

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB30-002-Q1-E1-D12

<400> 9547

caccatgtag agcctccatg aagaactccg gtaataaaaag aatgatagaa aggaagggaa 60
gttgaaagaa caaggtgatc cttgcaatga tttagatgaa gctttggaat gatataattg 120
aaataacttg gagctccgga aagaaaagat gaacaacttg gaaccgagaa tttgatatca 180
tgaacgaact ccgaaagaag gaataaatca cttggaggaa acaagaataa gaattatggt 240
atgcgatatcc ttcaccgata taaattgatg acaagcaacg gatttttgca tactacttat 300
tctcgtagaa aggattaaga tagatattgc gcaaacttgg gaaggtcttc atcgaaccac 360
gggtaggatt ganacaacga ataaattgat atgataac 398

<210> 9548

<211> 389

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D2

<400> 9548

ccgggtcgac ccgggtcaat cacaagcaca ccgcgtggta tcattccccg tccccacatt 60
 ccgattccat gtggccgcgg actatttcga tgcccaccgc cgccacgcgg tgtcggtgca 120
 cctccccctc acccggacaa tggagggcag ccttgatgca tgcaagctag ctaattcttc 180
 cacgtacggc caaagtcaac tatatatatt cgcaataata tgcgctcgat cgggtacttg 240
 ataataaaac ttgagtatgg ccctgctctc atgtgggtgt gtacttaaata ttttgtttgg 300
 aactttgggt gtgaacttaa ttagttacaa cgtgttatca ataaaactgc ttccgttcca 360
 aatcataata aaaaatactc cttttttcac 389

<210> 9549
 <211> 256
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D3

<400> 9549

acggctctagc tatccgggtc gacaagtatg acaatggagc gggctttgga cattttgcca 60
 tcacacatga ggatgtgtac aagctggctg agacaattaa atcatcttca tgttgtaaga 120
 tcactcgtga acctggtcct gtcaaggag ggtccactgt gattgctttt gcaacagacc 180
 cagatgggta catggtcgaa cttaaccaga aggggtccgaa gcctgagcct ctctgtcaag 240
 ttatgcctcc tgttgg 256

<210> 9550
 <211> 403
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D4

<400> 9550

cgggtccagct atccccgggtc gactacctga tccactcaca agtgggtgcc ttgcctcgag 60
 ttcagcaagg ttgggttcat cttccgtgag cacaacgcat cccctgggta ctatgatggc 120
 cgggtactgga caatgtggaa gctgcctatg ttcgggtgca ccgacgccac acaagtgatc 180
 aacgaggtgg aggaggtcaa gaaggagtac cctgacgcgt atgtccgcat catcggattc 240
 gacaacatgc gccaggtgca gtgcgtcagc ttcatcgcct tcaagccacc gggctgcgag 300

gagtccggca aggcctaaac agctcactca cgacaggcca tatataaagt gccattgcag 360
 ttttgtcaac tctgacattg ctttgggttt tccttctcca ttt 403

<210> 9551
 <211> 100
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D5

<400> 9551

acagcatgat cgtcttgaca tagacttcac attcggcatc tgatatgtta tcgggaatgt 60
 cctacggtac tgcgccttgc tcatcattgc acagcttaat 100

<210> 9552
 <211> 437
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-D7

<400> 9552

gacgcgagaa gacaccagaa ggggatcgtc tctcgtctcg tcgaggaatc aacaaccatg 60
 ggcggtggca acgcgcagaa gtccaagatg gcgagggaga ggaacctcga gaagctgaag 120
 ggcggcaagg ggagccagct cgaggccaac aagaaggcca tgaacatcca gtgcaagata 180
 tgcattgcaga ctttcatctg caccacctct gaagcaaagt gcaaggagca cgccgaggcg 240
 aagcatccga agagcgacct cgtccagtgc ttccccacc tcaagccgtg atatctgcc 300
 gatcggacgg agagagagag aagctgccgt aatccagcta gtattatcat gttccgcaat 360
 gactggttgt tgacctaaagc atgggtctga actccggtgt gctgctgtcc cagctgcctt 420
 ggttgtgtgc ccatcta 437

<210> 9553
 <211> 425
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB30-002-Q1-E1-D8

<400> 9553

ttcgcgggcc gacaccttca cagaacaatc catcgacttt ttcggtgctc tgcgtgctcg 60
 ggtgtacgac gacgaggtgc gcaagtgggt gacctctacc ggtatcgaga acattggcaa 120
 gaagcttgtg aactcgcggt acggaccagt gacctttgag cagccaaaga tgacagtcga 180
 ngaagctgct agagtacggt cacatgctcg tccaggagca ggacaatgtc aagcgtgtgc 240
 agcttgctga cacctacatg agccaggcag ctctgggtga tgctaaccat gatgcatga 300
 agactggttc catctacggt tagaacattc tccatacaca ctcaccatct cttgctgcat 360
 acgatgatgt aaatgggcac atcatggtaa tttgcctgtg ccgggacgat gcaccgacca 420
 gactg 425

<210> 9554
 <211> 423
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-002-Q1-E1-D9
 <400> 9554

attcccgggc tgacctgaga gtcaacaagg ggaaggttct tctcattgtt aacgtcgctt 60
 cgagtggtgg cttgaccaac tccaactaca ccgagctgag ccagctgtac ccgaagtaca 120
 aggaccaagg ctttgagatc ttggctttcc catgcaatca gtttggtggg caggagcctg 180
 gcaccaatga tgagatcggt cagtttgcct gactcgctt caatgccgag taccctattt 240
 tcgacaacgt tgatgtcaat ggcaacaatg tttctccccg atacaagttc ctgaagtcta 300
 gcaaaggtgg ccttttcggc gacagcatca agtggaactt ctccaagttc ttggttgaca 360
 acgagggctg cgctgtagac cgctatgcac cgaacactat cccacctgag cattgacaat 420
 gat 423

<210> 9555
 <211> 337
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-002-Q1-E1-E1
 <400> 9555

catctagtag accctgttat tgtgagaatt ctttaattcaa gagttatagg gagggactta 60

tgtcaccaca aacagaaact aaagcatgtg ttggatttaa agctggtgtt aaagattata 120
aattgactta cgacacccca tagtatgaaa ctaaggatac tgatatcttg gcaccattcc 180
gagtaagtcc tcagcctggg gttccgcccg atgaatcatg tgctgcaata actgccgaat 240
cttctactgg tacatggaca actgtttgga ctgattgact taccagtctt gatcggttta 300
aaggacgatg ctatcacatc gaggccttgtt gctgggg 337

<210> 9556
<211> 365
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-E2

<400> 9556

ccgggccgac ttttccacta acaaacccaa aatacccaac tctgccttac gtaaagttgc 60
cagagtacga ttaacctctg gatttgaaat cagtgccttat atacctggta ttggccataa 120
tttacaagaa cattctgtgg tattagtaat atgaggaagg gtttcggatt taccgggtgt 180
gagatatcgc attattcgag gaaccctaga tgctgtcgca gtaaagaatc gtcaacacgg 240
gcgttctaaa tatgggggtca gcacgccaaa ccaataagtg attttagccc ttatcaaaag 300
aaaacggatt cttgaacctc tttcacgctc atgtcacgtc aaggtagctc agacaaaaga 360
actgc 365

<210> 9557
<211> 437
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-E3

<400> 9557

gggtcgacac cttcccagaa caatccatcg actttttcgg tgctctgcgt gctcgggtgt 60
acgacgacga ggtgcgcaag tgggtgacct ctaccggtat cgagaacatt ggcaagaagc 120
ttgtgaactc gcgggacgga ccagtgcacct ttgagcagcc aaagatgaca gtcgagaagc 180
tgctagagta cgggcacatg ctcgctccagg agcaggacaa tgtcaagcgt gtgcagcttg 240
ctgacaccta catgagccag gcagctctgg gtgatgctaa ccaggatgcg atgaagactg 300

gttccttcta cggtaaaggg gcacagcaag gtactttgcc tgtgccggga tgatgcaccg 360
 accagactgc caagaacttc gacccaacgg cgatgagtga cgacggcagc tgcctttaca 420
 ccttttaagc atgcaaa 437

<210> 9558
 <211> 414
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-002-Q1-E1-E4
 <400> 9558

gcataaattg ttcgtacaga tattttcact gattgatgtt cagctattta acaggctcct 60
 tttgcggcgt gagtgtgtt catttagcaa cggggaatat gtcaaagctg gactagctga 120
 gctaaaacac tgggtctgaca atgctactcg agagtttgca ggttcggcct gggaggcatt 180
 gaagcatatc agacaggctg ttgatttctt ggtgatttct ctttaagccaa tgagaacact 240
 aagagagata cgtgctgatg tgtgccaagc cctcagcata cagcagctag agcgcatagt 300
 tggatatgta ctggatgacg tcaatggttc agacactatt tcagcagagt tcgcatcaag 360
 cttgagagct gcaacgcgtg aggaagcaca tactggtcac aactttctct atac 414

<210> 9559
 <211> 211
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-002-Q1-E1-E6
 <400> 9559

cgtagcaagc gaagaaatgc ttcggggaat ttaaaataag cataaattcg gaaaatccca 60
 aataaggtca ccctttaaac tgctgtcttg aatcaataac aaggcagaaa acacctggcc 120
 aaactgaaac atcttagtac ccaaaggaaa aaaaaaaca aaaaaaaaaa aaaaaagcgg 180
 gcgccccaaa agatataagc ctatatatac c 211

<210> 9560
 <211> 364
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-E7

<400> 9560

attcgcgggc cgacatggtg ctcaatgact actgcatgcc cgagatgacc ggctacgacc 60
tcctcaaggc catcaaggcc atgagtcctc tcaagcctat cccggtggtc gtcattgtcgt 120
cggagaacga gccccagagg atcagcagat gcctcaaggc tgggtgctgaa gattacatcg 180
tcaagcctct tcagagcaag gatgtgccgc gcctgaggag ctgctcgaac gcgaaaccca 240
aggaccctcc atgcagcact gtgagcaaga gcgcggacca tatagctgct gtcgatggca 300
cgtcgtcgtc gctgccacgg cgagcacacc tcaccgatat tgccatggtc ctccactcgt 360
cgag 364

<210> 9561

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-E9

<400> 9561

ttccccgggcc gactatgtac agacacatag agcgcgaggt aggctgatca gggagggtcca 60
ggagagcttc acggttgacg cgttcatcgg caacgcgacc gactgggagc tcgtttgtct 120
gggaaacctc gtgggggttgcc ccatcgtcgt ggtgcctacg ggcttcaaga gcattcgaaca 180
cccaccaata ggcaacacga ggagacgaac cacagtgcgc acgggcatat atgctcccc 240
tgaccatgac cacattgctc tagcgttggc gatggcgtag cagtccgtca ccgatcacca 300
caaacaacgg ccaccgattg acgcaaacta gaaaatacac aagtgattag ccggctgatg 360
aaatggtatt gagaagaaaa ctccgtgtgc tgtttcc 397

<210> 9562

<211> 287

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F1

<400> 9562

aatatgagac gaagacttaa tcttgatata cctcagaaga atacattcct gttacgacaa 60

catggattgg ccgctacgga tcaacttgact gggagtgtgaa tttggaacgg gtatacttga 120
 cgatgaggat atcaatcact tgaaagatag aggtaatcat tcggttgccg atccggttaca 180
 agatcaagtc ggattggctc ttgggcggtt tacaacatgc agttcagaag accattttgta 240
 cagtactcat acgtcaatcg aagacgactc cccaaacggt ggtaact 287

<210> 9563
 <211> 271
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-002-Q1-E1-F10
 <400> 9563

aattcccggg ccgacaagat tatcaacaga ggtgggaacc aaaccgtcga agctcgttga 60
 tggctcctac agtggttcggc agcgagttag tcttctgtat gtatctacat atcacaccaa 120
 aaggttaccg aataagatgt gtgattggct ttgcgcgtgt acccatacca gcatcgatcc 180
 tgtatcactt gtgtggtagt ttgcacaaaa cctgcttgaa aatgtttcat ggaaacttct 240
 ttgcctggcg atgatgcctg tattgaataa g 271

<210> 9564
 <211> 442
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-002-Q1-E1-F2
 <400> 9564

gggtcgactg ggttccgaag ctaaccgta tgggtgttga gttttggatg tctttcaaag 60
 aaccgccact gtcatttggc tatgtcccat tgcttgatgt tctgagtgtt tcaaagtgtg 120
 gtcttagttg gcatgaaatg gtcaagttaa gtacatttct tcatgagacc tctgttcgag 180
 acctgaggtt ggggtttaaa tgcgaaaaga tttgggttca accagagtgt ctgacaaaaa 240
 ggctggcatc tgtgttccac caactaagga ttgtcaatct agttgacatt cctgaagggt 300
 atgatctcac ctggacaatg ttcatTTTTGG aagcggtgcc gtccctagag gagttctaca 360
 tgacggtaat ggaccatcct tgtgaaatgc aatggatcac gagaaaagga gggcaagttg 420
 tatatcgacg acaaaggtgt ga 442

<210> 9565
 <211> 375
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F4

<400> 9565

tacctgatcc actacaagtg ggtgccttgc ctcgagttca gcaaggttgg gttcatcttc 60
 cgtgagcaca acgcatctcc tgggtactac gatggccggt attggacaat gtggaagctg 120
 cctatgttcg ggtgcactga cgccacacag gtgatcaacg aggtggagga ggtcaagaag 180
 gagtaccctg acgcgtatgt ccgcatcatc ggattcgaca acatgctca ggtgcagtgc 240
 gtcagcttca tcgccttcaa gccaccgggc tgcgaggagt ccggcaaggc ctaaacagct 300
 cactcacgac aggccatata taaagtccca ttgcagtttt gtcaactctg acattgcctt 360
 ggggttttcc cttct 375

<210> 9566
 <211> 413
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F5

<400> 9566

catcgagtag accctgttat tgtgagaatt cttaattcaa gagttatagg gagggactta 60
 tgtcaccaca aacagaaact aaagcaggtg ttggatttaa agctggtgtt aaagattata 120
 aattgactta ctacaccca gagtatgaaa ctaaggatac tgatatcttg gcagcattcc 180
 gagtaagtcc tcagcctggg gttccgcccg aagaagcagg ggctgcagta gctgccgaat 240
 cttctactgg tacatggaca actgtttgga ctgatggact taccagtctt gatcgttaca 300
 aaggacgatg ctatcacatc gagcctgttg cctgggacga cagccaatgg atctggtagg 360
 tagcttatcc attagaccta tttgaagagg gttccgttac taacatgttt act 413

<210> 9567
 <211> 450
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F6

<400> 9567

aattcgcggg cgcaccggct gaagaagaca gaaggggcag ggctggaagt tctgcgcatt 60
ataaatgagc caactgctgc atctcttgct tatggttttg agaagaaaaa caatgaaacg 120
attctagtgt ttgacttggg tggcgggtact tttgatgtct ctgtattgga gggtggagat 180
gggtgtatttg aggtgctttc cacatctggg gacacacact taggtggaga tgactttgat 240
aagaaaattg tagattggct tgctagcacc ttcaagaatg atgaaggcat cgatcttctt 300
aaggataaac aagcccttca gcgtcttact gaggcagcag aaaaagctaa gatggaattg 360
tcaacgctca cacaggcgaa cattagcttg ccattcataa ctgctactgc tgatgggccc 420
aaacacattg aggcaaccct ctctagagct 450

<210> 9568

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F7

<400> 9568

attcgccggc cgacaccttc acagaacaat ccacgcactt tttcgggtgct ctgcgtgctc 60
gggtgtacga cgacgaggtg cgcaagtggg tgacctctac cggtatcgag aacattggca 120
agaagctggg gaacgcgcgg gacggaccag tgacctttga gcagccaaag atgacagtgg 180
agaagctgct agagtacggg cacatgctcg tccaggagca ggacaatgct aagcgtgtgc 240
agcttgctga cacctacatg agccaggcag ctctgggtga tgctaaccac gatgcatga 300
agactggtac cttctacggg tagaacattc tccatacaca cccaccatct cttgctgcat 360
atgacgacgt aaaggggcac agcaacgtac tttgcctgta ctgggatgat gcaccgacca 420
gactggcaag aacttcgacc caacg 445

<210> 9569

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F8

<400> 9569

acatcgagac ggatgcgcat gtcaagcagg cgatgaatga gatcaatgca gctgcaagga 60
tgaggggtggc tgcaaacgag aaggcggagg ctgagaagat tgtccagatc aagcgtgccg 120
aggggtgaagc agaggccaag tacctgtctg gcctcggtat cgcgccag cgccaggcca 180
ttgtggatgg cctgaggac agcgtcctgg gcttctcagt caacgtgcct ggcaccactg 240
caaaggatgt gatggacatg gtgctgatca cccagtactt tgatactatg aaagagatcg 300
gcgcatcctc caagtctcgc gcggtgttca tccccatgg ccctgggtgcg gtgcgcgaca 360
tcgccacgca gatccgccat ggtcttcttc aaggccagtc tgcctctgac aactagcagt 420
tggctttgcc ggcatgaact tt 442

<210> 9570

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G1

<400> 9570

cgggtcgacc tactccttta aggatgggag atggatcatgg ggacgattgt atggcgcca 60
gataggtctt cccacaaaga gccgcattgc ctgatgtag ttgtcactat ccaatgtaaa 120
gcggtgatac attcctgcag gcaaaacaat catgccacct ttcttaactg ctatacggat 180
ccactgttcg ttttggcccc tcacatcaaa gtatccactg ccctcgagac aatagcgtat 240
ctcttcatca gtatgcaagt gctcttcaaa gaagttcttc agcttggcct catagtttgg 300
caacttctct ggacatacgt cgcaaagtgc cacataagag tatccccctgt cctcacggat 360
tttcttgaga ttctcgtctt tctcccagtc atcagcattc atgtttcacc ttacaacacc 420
caattctgac catttggca 439

<210> 9571

<211> 437

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB30-002-Q1-E1-G10

<400> 9571

attccggggcc gacaccttcc caagacaatc catcgacttt ttcggtgctc tgcgtgctcg 60
ggtgtacgac gacgaggtgc gcaagtgggt gacctctacc ggtatcgaga acattggcaa 120
gaagctggtg aactcgcggtg acggaccagt gacctttgag cagccaaaga tgacagtgga 180
gaagctgcta gagtacgggc acatgctcgt ccaggagcag gacaatgtca agcgtgtgca 240
gcttgtgac acctacatga gccaggcagc tctgggtgat gctaaccatg atgcgatgaa 300
gactgggtacc ttctacggtt agaacattct ccatacacac ccaccatctc ttgctgcata 360
ngaggaggta aaggggcaca gcaacgtact ttgcctgtna cggcatgatg caccgaccag 420
actgccaaga acttcga 437

<210> 9572

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G3

<400> 9572

ccgggtcgac agcgtcgctc actcaggcgc aggcgcagcc ggacttcgat tacctgttca 60
agctcctcct catcggcgac tccggcgctc gcaagagcag tctcctcctc cgattcacat 120
ccgactcatt cgaggacctt tccccaacca tcggcgtgga cttcaagggtg aagatgggta 180
acattgccgg caagaagctc aagctcgccg tctgggacac cgctggacag gaacgggtta 240
ggaccttgac cagctcttac tacacacggg cacaagggat catcatgggt atgtacgatg 300
ttactcgccg agaaacattc accaatctct ctgacatatg ggccaaggaa attgacctgc 360
attcgaccaa ccaggactgt gtaaagatgc ttgtcggaaa caaagtggac aatgaaaatg 420
agagggctgt ca 432

<210> 9573

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G4

<400> 9573

gactacctga tccactacaa gtgggtgcct tgcctcgagt tcagcaaggt tgggttcac 60
 ttccgtgagc acaacgcac tccctgggtac tacgatggcc ggtattggac aatgtggaag 120
 ctgcctatgt tcgggtgcac tgacgccaca caggtgatca acgaggtgga ggaggtcaag 180
 aaggagtacc ctgacgcgta tgtccgcac atcggattcg acaacatgcg tcaggtgcag 240
 tgcgtcagct tcacgcctt caagccaccg ggctgcgagg agtccggcaa ggcctaaaca 300
 gctcactcac gacaggccat atataaagtg ccattgcagt tttgtcaact ctgacattgc 360
 tttgggtttt ccttccccat ttatctttcc taattgttcc taagaatatg tgtatgtcca 420
 tgttcat 427

<210> 9574
 <211> 456
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB30-002-Q1-E1-G5

<400> 9574

taccggacta gaattccgcg tcgacacctt cacaggacaa tccatcgact ttttcggtgc 60
 tctgcgtgct cgggtgtacg gcgacgaggt gcgcaagtgg gtgacctcta ccggtatcga 120
 gaacattggc aagaagcttg tgaactcgcg ggacggacca gtgacctttg agcagccaaa 180
 gatgacagtc gagaagctgc tagagtacgg gcacatgctc gtccaggagc atgacaatgt 240
 caagcgtgtg cagcttgctg acacctacat gagccaggca gctctgggtg atgctaacca 300
 ggatgcgatg aagactggtt ccttctacgg ttagaacatt ctccatagac acacaccatc 360
 tcttgctgca tatgatgagg taaaggagca cnagcatgta ctttggcctg tgccgggagg 420
 atgcaccgac cagactgcca agaacctga cccaac 456

<210> 9575
 <211> 375
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G7

<400> 9575

acgcgcta at gcagttacga cagatgggaa taaagccgat ggacagactt tgcttgtcag 60

cgatcggaac aagtacaagt caatgcttat ccgtacatat tctactgtgt ggatgattgg 120
 cggtcttgca ttcctagttt atatgggcca tctttatatac tgggccatgg tggttgtcat 180
 tcaaataattc atggcgacag agcttttttaa tctactcaga aaatccagtg aagagaaaca 240
 actgccaggg ttcaggctcc cgaattggca cttctttttc acggcaatgt tgtttacata 300
 tggacgcttt cttagtcggg agcttggttaa cacagtatct tcagatcact tgttgataa 360
 gctcgtcagc agcct 375

<210> 9576

<211> 383

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G8

<400> 9576

catcgagtat accctgttat tgtgagaatt ctttaattcaa gagttatagg gagggactta 60
 tgtcaccaca aacagaaact aaagcagggtg ttggatttaa agctgggtgtt aaagattata 120
 aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatcttg gcatcattcc 180
 gagtaagtcc tcagcctggg gttccgcccg aagaatcagg ggctgcagta tctgccgaat 240
 cttctactgg tacatggaca actgtttgga ctgatggact taccagtcac gatcggtaca 300
 aaggacgatg ctatcacatc cagcctgttg ctggggaaga cagtcaatgg atctgttacg 360
 tagcttatcc attagaccta ttt 383

<210> 9577

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H10

<400> 9577

gcctccacct cccacctcat cgccgcccga ggctttgact ccatcgctc ctccctctc 60
 ctcttcgtct ccggcaggcc aggtagttaa cagctccagc agccatggga aaggataaga 120
 tccacatcag cattgtggtc attggccatg ttgactctgg caagtcaacc acgactggcc 180
 acctcatcta caagcttgga ggcattgaca agcgtgtgat cgagagggtc gagaaggaag 240

ccgctgagat gaacaagagg tctttcaagt atgcctgggt gcttgacaag ctcaaggctg 300
 agcgtgagag gggatcacc attgatattg ctctctggaa gttcgagacc accaagtact 360
 cctgcactgt cattgatgct cctggtcacc gtgatttcat caagaacatg a 411

<210> 9578
 <211> 322
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H2

<400> 9578

ccgggtcgac cgatctgcct acaaaccgcc taagaggcgc agagttctca gagagctggg 60
 ccagatctat caatggaagg ggaatactat gattccctgg tgcacgatt tggcgaacaa 120
 ggatccctca tcgaaggatt cgggaggga gccgaaggtc cggacgcata tcggacacag 180
 cttcgtcagc ggatgtccca ggatttcctg ttgacgaacc tggaagagcg gaggcgagcc 240
 gccgacgatg tatgcagtga ccagcctct aaaaaggcca tgttgggtcc gcatgtgctg 300
 accgttgag aaacaatggg ac 322

<210> 9579
 <211> 432
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H3

<400> 9579

gggtcgacag ctccatgatg acaagaaact ggctatcgtt cgacgtggtc cttcctgttg 60
 ctctgtcatg cctgtttggg ttatctatat ctttctttgg attctcctgc agacggggcca 120
 tctctgctac tggatttacg gtgctcggtg tagtgaacaa gtcgtgacc gtcgtgatca 180
 atctgcgtat ctgggacaag catgcgtccc ttgtggggac aattgggctc ttgatatgca 240
 tgtctgggtg tgttctctac cagcaatcga ccagatagcc caaggtgccc aagatcgagc 300
 caaacgaaga ggactatgaa gacgggcaga atttgctgca cattcagccc gggcatgaga 360
 gcagcccaag tcaaaatcat tcctcatatg cctactttac cttccctcgg caacctattc 420
 gtggtatata tc 432

<210> 9580
 <211> 333
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB30-002-Q1-E1-H4

 <400> 9580

ccgggccgac cagagattgg acttatgttg agagggatga ttgatcgcaa gcagagtcgc 60
 gttgtgttag tgtcaccgga cttcctaaag taagattgtg aaagagctgc tgaagtcaca 120
 ccaagctagc acagcggtga tagtgagtt catgacagtc ttgattagct tgagatcatc 180
 aaggctgaag cgtcgatgca cgaagcgctt ggcacggcga gacccgctgg catctggcat 240
 atgcgtgaac atcgtaggg gatctctcaa gaacagtacc gtcgcagcat gcagtgcgac 300
 atccagcagc gtgtgccatg ccagcacaag ata 333

<210> 9581
 <211> 401
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB30-002-Q1-E1-H5

 <400> 9581

gtgcctctag cgtagaatgc ttgctcatga cgtgacgaac ttagagtcgt ctgagagttt 60
 ggataatcat ctgacttagt atacctgagt attggccata atttagaaga acattctgtc 120
 gtattagtaa gatgaggaaa ggttaaggat ttacccggtg tgcgatatca cattagtcaa 180
 agaaccctag atgctgtcgc aatagtcaat cgtcaacaac ggcgttctaa atatgtggtc 240
 aaaacaccac tgggttaagt gatttttagcc cttataaaaa caggatcgat tcatgagcct 300
 cttacacgct catgtcacgt agaagtactg catacaaaaag aactggaaaa tgggatacac 360
 tttgtcgtaa tccattagtt aacatgggtg ttaaccatat t 401

<210> 9582
 <211> 443
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB30-002-Q1-E1-H7

<400> 9582

attcgcgggc cgacaccttc ccagaccaat ccatcgactt tttcgggtgct ctgcgtgctc 60
gggtgtacga cgacgaggtg cgcaagtggg tgacctctac cggtatcgac aacattggca 120
agaggctggt gaactcgcgg gacggacccg tgaccttga gcagccaaag atgacagtgg 180
agaagctgct agagtacggg cacatgcttg tccaggagca ggacaatgtc aagcgtgtgc 240
agcttgctga cacctacatg agccaggcag ctctgggtga tgctaaccag gatgcgatga 300
ggactggttc cttctacggt tagaacattc tccatacaca cccaccatct cttgctgcat 360
acgaggaggt taatgggcac agcaaggtag tttgcctgta ccggcacgat gcaccgacca 420
gactgccaag aacttcgacc caa 443

<210> 9583

<211> 329

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H8

<400> 9583

gacagacgaa agcagggtat ctaagtcgac atactaatac agagaacaca taacgattga 60
ttcgcagcaa tacatgtcat tcacattcaa ctagaagtgc ctaagttccg ttttgagtgg 120
caggtctaag ggtgcgttct tcaatgtcaa tgaaagcgta ttcgtaaaaa tagttggaag 180
aagaagactt aattttccat agtacaatct tattctttag taaaatcaag atcattttcg 240
agcgggtgatg aacatctaaa accaaaggtt ttttctgggc aacatccaaa taataagatt 300
tttgaataac atgaattgac ttatcaca 329

<210> 9584

<211> 256

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H9

<400> 9584

taatcttgat atatctcagt cctgtgcact cgtgcaacga caaagatgta catgcgccga 60
ctatcgcgtc cactcgcgct gagaataaca ctttgatact gatgcagatg gcatgaccat 120

gcctctcacg ataggcatga aaattttcga tcagtcgagg tttcgtcaca ctatcgattc 180
 ttgctagccc attgccccat aaaacttgtc atctcccccc gccatccgta caatctcatc 240
 cctccccctc cttttg 256

<210> 9585

<211> 389

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G6

<400> 9585

gacagatgaa tgacggtaaa cccaggtgc aggatcacat cggaggatgc tctgtcacac 60
 gagttcttgg ctccgtgccg tgaaagcctc aagaagaacg cgcttaggat taggtcagca 120
 tcagcttctc accctcctcc ctgcttgctc cgagatgccca tggttaacgc caacgagttg 180
 tagcactcgt ttcagacctt acttgacctg ttttgacctg agtaagctta agctgaaact 240
 ggtaactgac gtgtcgtgtg tggctgtgtg ccaatagctt gtttatctgt ttattactgc 300
 tgtaaatgct gtacttaaaa aatgtaacaa tctaattgtc ccgtgtgctg acaagggttg 360
 cagaaaaaaaa aaagacgggc ggaggaaaa 389

<210> 9586

<211> 417

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H6

<400> 9586

aattccccgg cgcagtcgt caccggcacc cgcgtcaaga cccacttcgc ccggcccaac 60
 tggcgcaaag tctacaagga catcgccctc aagcacgccg ggcagcgcgt cggagttttc 120
 tactgcgccg cgccggtgct gatcaaggag ctgcgccagc ttgcccaga tttctcgagg 180
 aagacgagca ccaaattcga gttocacaag gagaatttct aactttgcag ccagcccagt 240
 cacaagaagt tcctcctttt tttttagaaa agaaacaagt ttctcttttc gcgaggaaaa 300
 agtctgttaa ttcagtacat acccagttct atagatggaa gtaggtgttg gttgattttc 360
 acaagctggg tcaagagtta catcgatttt tttgcctaac aaaaacacaa gaagtcg 417

<210> 9587
 <211> 343
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H7

<400> 9587

attcgcgggc cgacatcggc aggagcgtca tccatggaag cgactcagtt gagagtgcga 60
 ggaaggagat cgccctgtgg ttccctgagg gcattgcaga gtggaggagc agccagcaca 120
 actggatcta tgaggcctaa gatgtgtcat gagtggttga gtgcagggtt cattaagcat 180
 ctaccaaact agtctttggt tgtttacagt ttgagattt gtatcttggg aaccttggtt 240
 gtgtgaactg aagttatctc cttgtgcttg ggcattccaag cggtatctgc tgctctatat 300
 ttgatatatg gtattgctgt aaaaataaaa aagggcacta caa 343

<210> 9588
 <211> 264
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB30-001-Q1-E1-A12

<400> 9588

taccggtctt atnttcccg gtcgacaaga gcacaataaa aaaccaaggc ttaactgcag 60
 ttcgtgtgtt gcttatatta tatgttgcta ttatattacc attattaagt gagggaggaa 120
 ttgattagtg ccagtgtttg attttgttct gtttgtcatg gtacgaggaa agattaccga 180
 gtagataagg tctagtagca gtttcgctgt acctaatcag tacccttggt tcattccgac 240
 tagtaagtaa aaacttggtt ttcc 264

<210> 9589
 <211> 357
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-A6

<400> 9589

ggtaccgata tagaattccc gggccgacaa cttcatagaa tacaccagcg acttttgcg 60
 tgctctgagt actgttgtgt acaactacca tgtgcacaag tcagcgactg cgaacgataa 120
 cgacaagatt ggcaaaatgt tggatgaagtc tcggtacgga tgcatagaact ttgagcaggt 180
 aatgatgaca gtggagaagg tgctaaagta ctggcatatg cctgacgacc accacgacag 240
 tgtcaagcgt atgcatcatg ctgacaccta catgatcaac gcatttctgg gtgatgctaa 300
 ccaggattcg atgaaggctg attcattcca ctcgatacac attctccata cactgcc 357

<210> 9590
 <211> 423
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-C1

<400> 9590

gcgacgcaga aaacggcgac tcttacgcaa tagcattgta tttggaggac aagtaccctc 60
 agcgccctct tttgccccaa gaccttaaaa agaaggccct gaatatccag atagcaagca 120
 ttgtgtgttc tggatttcaa cctcttcaca atctcacctt ggtgagattt atcgagcaaa 180
 aagttggaac aggggagagc atcccgtagg tcaaacaaca gattgataga ggtttcacag 240
 ctgttgagaa catgatcaaa ggctgtgctg ggaagtttgc tatgggagat gaagtccaac 300
 tggcagatgt attccttgca cccagattt ttgctgcggt gactcgttat caaatcgaca 360
 tgtcgaacta tcccaccctc gcgaggctct acgatcaata tatgacacac cctgcatttg 420
 aag 423

<210> 9591
 <211> 476
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-C10

<400> 9591

taccggtcct atcttcccg gtcgacacct tcccaggaaa atccatcgac tttttcggtg 60
 ctctgcgtgc tcgggtgtac gacgacgagg tgcgcaagtg ggtgacctct accggtatcg 120
 agaacattgg caagaggctg gtgaactcgc gggacggacc cgtgacctt gagcagccaa 180

agatgacagt ggagaagctg ctagagtacg ggcacatgct tgtccaggag caggacaatg 240
tcaagcgtgt gcagcttgct gacacctaca tgagccaggc agctctgggt gatgctaacc 300
aggatgcgat gaagactggt tccttctacg gttagaacat tctccatata caccaccat 360
ctcttgctgc ataggatgag gtaaaggggc acagcaaggt actttgcctg ttacggcagg 420
atgcaccgac cagactgcca ggaacttcga cccagcggcg aggagttacg accgga 476

<210> 9592
<211> 449
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-C3

<400> 9592

ccggtctagt attcccgggc cgactacctg atccactcca agtgggtgcc ctgcctcgag 60
ttcagcaagg ttggcttcgt cttccgtgag cacaacagct cccccgggta ctacgacggt 120
cgatactgga caatgtggaa gctgcccattg tttgggtgca cgcacgccac acaggtgctc 180
aacgaggtgg aggaggtcaa gaaggagtac cctgacgcct atgtccgtgt catcggcttc 240
gacaacctgc gccaggtgca gtgcgtcagc ttcacgcctc tcaggccacc gggttgcgag 300
gagtccggca aggcctaaac tacgagttga aacaatggcc tatctcgat gaaggtcttt 360
tgtgaacttc acttttgtcc acaactctgc tgcacgactc tgctttcgga ccggagcata 420
ccttttgttc tatatgattt gtgtatgta 449

<210> 9593
<211> 421
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-C5

<400> 9593

gtacctatca ggaattcccg ggccgacgac atactggaac tcatcgggtga tcaactgcat 60
gggtgcatcg gccagctaac agaggactgg ggggaagtgc tcttctctgc gctcaagcgt 120
gccggcggga cagccttcag caacatggcc gtcggttaca acaacgttga tgctgatgct 180
gccaacagga atggcatcgc catcggcaac acgcctgggtg ttcttactga gacgacggcg 240

gagctggcgg cgctcgctgtc ggtggcggct gcccgaggga tcgttgaggc cgaccaattt 300
 atgagggctg gtctctacga cggatggctc ctgcacttgt ttgttgggaa cttgctcaag 360
 gggcagactg ttggagtgat cggagctggc cgcacggct cagcttatgc aaggatgatg 420
 a 421

<210> 9594
 <211> 448
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-001-Q1-E1-C6
 <400> 9594

ggtaccggtc tagaattccc gggccgacta cttgatccgc tccaagtggg tgccctgcct 60
 cgagttcagc aaggttggtt tcgtcttccg tgagcacaat agctcccccg gatactatga 120
 cggtcgatac tggacaatgt ggaagctgcc tatgttcggg tgcaccgacg ccacacaggt 180
 gctcaacgag gtggaggagg tcaagaagga gtaccctgac gcctatgtcc gcgtcatcgg 240
 cttcgacaac ctgcgccagg tgcagtgcgt cagcttcacg gccttcaggc caccggggtg 300
 cgaggagtct ggcaaggcct aaactacgag ttgaaacaat ggcctatgta tgaaggctct 360
 ttgtgaacgt cacttttgtc cagcactctg ctggacgacc agagcatatt ttctattcta 420
 tatggtctgt gtatgtatgt acgaacat 448

<210> 9595
 <211> 451
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-001-Q1-E1-C7
 <400> 9595

gtaccgatct agaattcccg ggccgacgac atactggaac tcacgggtga tcaactgccat 60
 ggtgtcatcg gccagctaac agaggactgg ggggaagtgc tcttctctgc gctcaagcgt 120
 gccggcggga cagccttcag caacatggcc gtcggttaca acaacgttga tgtcgatgct 180
 gccaacagga atggcatcgc catcggaac acgcctggtg ttcttactga gacgacggcg 240
 gagctggcgg cgctcgctgtc ggtggcggct gcccgaggga tcgttgaggc cgaccaattt 300

atgagggctg gtctctacga cggatggctc ctgcacttgt ttgttgggaa cttgctcaag 360
 gggcagactg ttggagtgat cggagctggc cgcacggct cagcttatgc aaggatgatg 420
 attgacgggt tcaagatgaa cttgatctac t 451

<210> 9596
 <211> 448
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-001-Q1-E1-C8
 <400> 9596

gtaccggctc agaattcccg ggccgacgga tgatgggagc gagattttat cgcattcatg 60
 cattcttggc atcagatctc ccgttctgag aagtatgctg gaagaagcta gagtggaaga 120
 tgggtctcaga aacatcctga tttccgggtg accatctcaa gcagtccgtg tcttcatcag 180
 atttctgtat tcttcacgct ttgagcagga tgagatgaag aaatacgccc ttcatttgct 240
 cgtactctct catgtttact cgttacaatc tctgaagatc gtctgtaccg accagctcga 300
 gaggtttttt ctcgtctctg ataacgcggg ggacgttcta caacttgacac ggctatgtga 360
 cgcaccaagg ctctcactca tctgtactcg tatgatcact ggagatttca agaccatctc 420
 tctgtcagaa ggggtggaaag tgatgaga 448

<210> 9597
 <211> 444
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-001-Q1-E1-D5
 <400> 9597

gtaccgatca ggaattcccg ggccgaccag ggttgcacgg cccgatccaa cgcctcgtcc 60
 gacggcgctg ccggccggcg atggatatgg agaggagctc gggctcttct tgtgtatatt 120
 agggcagcag tagttttagt ttgtcttggc ttcatgccgt ggtctggcgt tatgccgtgg 180
 ggatgcaaac cactggagct ctcgagcggc gtctgggtgg ggctccgctc gttttctttc 240
 ttgccaccat ggtggtggaa agtgggaagac gccggatctg gcaagatccc cttgaataag 300
 ctggttctgg tgtgtgggtg ttccctgatc tggagggcat ccaactgcta ctgcttgttt 360

tctcaggcta ccatggtggt ggatgagaag caggatagtt gcagaatcct gaagtttata 420
 ggtcgagttc gagcatatca gcag 444

<210> 9598
 <211> 391
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-001-Q1-E1-D6
 <400> 9598

gtaccggact agaattcccg ggccgacgga cacaaccaag gcggcactct agatgaacgt 60
 gctcaagctg gtgaccgga cgcattcgcc aagattaggg ttcattagcat ggacatcagt 120
 ctctgctggca tcttctgcag gtgcggcttc ctctgccaca ccatcatcac tcgcaccggt 180
 caacacaaca tccacgtgta acacatggcc gggctctctga atgcaagcac ctctgtatat 240
 gccacaaacc tagctcctgt gaatttatgt atgtatgcac gcagtgtaac agatcgtagt 300
 atattctgaa tgtgtatatc agtatctctg ttacgatgaa tctcctatct aacaacgtta 360
 agaggagatt ctctgcaaga gcttaggtgt t 391

<210> 9599
 <211> 265
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-001-Q1-E1-D7
 <400> 9599

gtaccgatct agaattcccg ggccgacctc atccgtaaca tgcacagctc caagtaaattg 60
 agaggcatga agttactggg gagagtgggt tgccccagag gagggttcaa agcctttctt 120
 ctgagaataa atttttgtgt ggaattatgt cagctaaaaa ccttttattg gatgtatcct 180
 gatgggttggg tgggcttaga gctcacattt tgggtggtatt atgtacttgc ttgaactaaa 240
 tcatgagtca ttttactca tcttc 265

<210> 9600
 <211> 454
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB30-001-Q1-E1-D8

<400> 9600

gtaccggtct agaattcccg ggccgactac ctgatccgct ccaagtgggt gccctgcctc 60
gagttcagca aggttggtt cgtctttcgt gagcacaaca gctcccccg gtactacgac 120
ggccgatact ggacaatgtg gaagctgcct atgttcgggt gcaccgacgc cacgcaggtg 180
ctcaacgagg tggaggaggt caagaaggag taccctgacg cctatgtccg cgtcatcggc 240
ttcgacaacc tgcgccaggt gcagtgcgtc agcttcacgc cattcaggcc accgggttgc 300
gaggagtctg gcaaggccta aactacgagt tgaagcaatg gcctatgtat gattgtcttt 360
tgtgaacttc acttttgtcc aggactctgc tttccgacca gagcatattt ttcgttcggt 420
atgatctgtg tntgtacgaa cataggttgt ggag 454

<210> 9601

<211> 337

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-E10

<400> 9601

taccggtctt atcttcccg gtcgacggct acagcccaat atacacgcca gaggaatggt 60
ctgaatctgg tgaccgctac gccggcgaa cgaccggggt tcttatctgg gccgtcacc 120
tcgccggcct cctcgcggc gccgtcctcc tcgtctacaa caccagcgct ctgcgccggt 180
aagagagcat ctacgtgtaa cacagggcgg ggtctctgct tgcatgcacg tctctgtaat 240
ctacatagct acctcctgtg aatgtatgca atcaacgatg caaagtaatt gatccgaaca 300
gatggtttat gtgtatgcaa aagaaaaaga gactcac 337

<210> 9602

<211> 179

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-E6

<400> 9602

ggtaccgatc aggaattccc gggccgaccg acagaagagg tcccacactt cacaaatccc 60

caccaatcga acacacactc ctcccggctc cctcaaatgg cgctcctcgc tgtcaagggc 120
atggccattt caacggcggc cttccctggg aacaacaacg gggccttacc ttctcctcc 179

<210> 9603
<211> 351
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-E7

<400> 9603

ggagccgtcg tcgtcgtcca acccctccga cctcacacc aactttgcct ttcccatcc 60
ctctgcgccc tcgccgtccg cggatcaacc gatttcgcac gcaatgtctc agactgttga 120
actcaggggtt ggcattgtcat gtgagggatg tggtggagct gtttaagcggg ttcttggcaa 180
aatggaaggt gttgagtcct tcgatgtaga catcaaggag cagaagggtca ctgtgaaggg 240
taatgtgacg ccggatgctg ttctgcagac tgtttcgaag acaggcaaga agacatcggt 300
ctgggagggt gaaccctcgg catctgctgt ttcgtcctaa aagacgcac t 351

<210> 9604
<211> 433
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F3

<400> 9604

cgggtcgacg agatttaca ggaatgcata atcgcgctga gtccaaatgt tcctgggcag 60
atcttcatgg gacttatggt gaaccctcct aaacctggag acatctcgta cctgaagtat 120
tctgctgaaa gtaagtctat ccttgaatct ttgaggagga gggcacaaat aatgacagac 180
ggtttcaata gttgccgaaa tggtgtctgc aatttcacag aaggagctat gtattctttc 240
ccgcaaatac ggctgccgca aagagctatg gatgtagcaa aaagcgctgg caaagcggcc 300
gatgtttact actgcctcaa gcttctggaa gccactggaa tatccactgt tccaggctca 360
ggttttggtc agaaagaagg ggtgttccat ctgaggacga cgatcctgcc cgcggaggaa 420
gacatgccgg cga 433

<210> 9605
<211> 442
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F6

<400> 9605

gtacctatct agaattcccg ggccgacttt tccactaaca accccaaaaa acccaactct 60
gccttacgta aagttgccag agtacgatta acctctggat ttgaaatcac tgcttatata 120
cctggtattg gccataattt acaagaacat tctgtagtat tagtaagagg aggaaggggtt 180
aaggatttac ccggtgtgag atatcgcat attcgaggaa ccctagatgc tgtcgcagta 240
aagaatcgtc aacaagggcg ttctagtgcg ttgtagattc ttatccaaga cttgtatcat 300
ttgatgatgc catgtgaatc gctagaaaca tgtgaagtgt atggctaacc caataacgaa 360
agtttcgtaa ggggactgga gcaggctacc atgagacaaa agatcctctt tctaaagaga 420
ttcgattcgg aactcttata tg 442

<210> 9606
<211> 454
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-F7

<400> 9606

gtaccgatct agaattcccg ggccgacggc gacgcagaaa tcggcgactc ttacgcaata 60
gcattgtatt tggaggacaa gtaccctcag cgcctctttt tgccccaaga ccttaaaaag 120
aaggccctga atatccagat agcaagcatt gtgtgttctg gtattcaacc tottcacaat 180
ctcaccttgg tgagatttat cgagcaaaaa gttggaacag gggagagcat cccgtgggtc 240
aaacaacaga ttgatagagg tttcacagct gttgagaaca tgatcaaagg ctgtgctggg 300
aagtttgcta tgggagatga agtccaactg gcagatgtat tccttgacc ccagatTTTT 360
gctgcggtga ctcgttatca aatcgacatg tcgaactatc ccaccctcgc gaggtcttac 420
gatcaatata tgacacaccc tgcatttgaa gctg 454

<210> 9607
<211> 451

<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G1

<400> 9607

ccggtctaga agtccccggc cgactctggt aagtagaaaa cacttgcca cctgatctac 60
aagcttggag gcattgacaa gcgtgtcatc gagagggtcg agaaggaagc cgctgaaatg 120
aacaagaggt ctttcaagta cgcttgggtg cttgacaagc tcaaggccga gcgtgagaga 180
ggtatcacca tcgatattgc tctctggaag ttcgagacca ccaagtacta ctgcaccgtc 240
attgatgccc ctggtcaccg tgacttcatc aagaacatga tcaccgttac ctcccaggct 300
gactgtgctg ttctcatcat tgactccacc actggtggat ttgaggctgg tatctccaag 360
gatggccaga cacgtgagca tgctctcctt gctttcactc ttggagtga gcagatgatc 420
tgctgctgca acaagatgga cgccaccact c 451

<210> 9608
<211> 451
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G5

<400> 9608

gtaccgatct agaattcccc ggccgactac ctgatcaact ccaagtgggt gccttgccctc 60
gagttcagca aggttgggtt catcttccgt gagcacaacg catctcctgg gtactacgat 120
ggccggtatt ggacaatgtg gaagctgcct atgttcgggt gcaactgacgc cacacagggtg 180
atcaacgagg tggaggaggt caagaaggag taccctgacg cgtatgtccg catcatcgga 240
ttcgacaaca tgcgtcaggt gcagtgcgtc agcttcatcg ccttcaagcc accgggctgc 300
gaggagtccg gcaaggccta aacagctcac tcacgacagg ccatatataa agtgccattg 360
cagttttgtc aactctgaca ttgctttggg ttttccttct ccatttatct ttcttatttg 420
ttcctaagaa tatgtgtatg tccatgttca t 451

<210> 9609
<211> 340
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-G8

<400> 9609

attccccgggc cgacggctac agcaagatct acacgccaga ggaatggtct gaatctggtg 60
accgctacgc cggcggaacg accgggcttc ttatctgggc cgtcacctc gccggcctcc 120
tcggggcgcg cgtcctctc gtctacaaca ccagcgctct cgccggctaa gagagcatct 180
acgtgtaaca cagggccggg tctctgcttg catgcacgtc tctgtaatct acatagctac 240
ctcctgtgaa tgtatgcaat caacgatgca aagtaattga tccgaacaga tggtttatgt 300
gtatgtacgt aacgctgtaa cgatatactt cctactttac 340

<210> 9610

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H1

<400> 9610

gggtcgacta ggcggactag tacgagtga gagaaaaaaa agccatacgg aactcaaaat 60
atcccccgga gatattcatt ttcctgaaga ggcggataag atattagggtg gctgtttgat 120
accgccagaa agacaaaaaa aagattctaa ggaatcaaaa aaaaggaaaa attgggtcta 180
tggtcaacgg aaaaaaatc tcaagagcaa ggaaaagtat tttgtttccg ttcgccctac 240
agtggcatat gaaatggacg aaggaagaaa ttagcaaca cttttcccgc aggatctctt 300
gcaagaagaa aataatctcc aaattcgact tgtcaatttt atttctcatg aaaatagcaa 360
gttaactcaa agaatttatc acacaaatag tcaatttggtt agaacttg 408

<210> 9611

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H8

<400> 9611

aattccccggg ccgactactt gatccgctcc aagtgggtgc cctgcctcga gttcagcaag 60
gttggtttcg tcttccgtga gcacaatagc tccccggat actatgacgg tcgatactgg 120

acaatgtgga agctgcctat gttcgggtgc accgacgcca cacaggtgct caacgaggtg 180
gaggaggtca agaaggagta ccttgacgcc tatgtccgcg tcatcggctt cgacaacctg 240
cgccaggtgc agtgcgtcag ctcatcgcc ttcaggccac cgggttgcca ggagtctggc 300
aaggcctaaa ctacgagttg aaacaatggc ctatgtatga aggtcttttg tgaacgtcac 360
ttttgtccac gactctgctg gacgaccaga gcatatTTTT cattcc 406

<210> 9612
<211> 446
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-001-Q1-E1-H9

<400> 9612

ccgggtcgac ttttccacta tcaaaccxaa aaaacccaac tctgccttac gtaaagttgc 60
cagagtacga ttaacctctg gatttgaaat cactgcttat atacctggta ttggccataa 120
tttacaagaa cattctgtag tattagtaag aggaggaagg gttaaggatt taccgggtgt 180
gagatatcgc attattcgag gaaccctaga tgctgtcgca gtaaagaatc gtcaacaagg 240
gcgtttctaaa tatgggggtca aaaagccaaa aaaataagtg atttttagccc ttataaaaag 300
aaaacggatt cttgaacctc tttcacgctc atgtcacgctc gaggtactgc agaaaaaaga 360
actgcaaaat ccgatccaat ttttcgtaat cgattagtta acatgggtggg taaccctgat 420
atgaaagacc gaaaaaaatc attggc 446

<210> 9613
<211> 447
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-A10

<400> 9613

ggtactagtc tagaattccc gggccgacga ggcttataga cactgttga tcacctcaag 60
cgctctaca tcgaccacta tttccaagac gagatcgaga ccatcataga ctcggtgtgca 120
gatctcatcc atagtgatga tctgcttgat gcaacccttt ccttgaggct gatgcgagaa 180
gctggatatt atgtttcggc agatgatgtt cttcagaagt tcagaaacga taatgggtgaa 240

ttcaaccttg ggctcagcaa agacattaga gggttgctca gcttgcaaga catatcacac 300
 ctcaacatgg gagaatcatc actctacaag gcaaacgaat tctcaagcaa gcatcttaga 360
 ttcacaatta agtatttggg gccaaacctt gcaatatatg tgaggcgggc actagaccat 420
 ccctatcatg tgagcctgat gcaatac 447

<210> 9614
 <211> 431
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-002-Q1-E1-A11
 <400> 9614

tcccgggccg acttatcatc taagggttgg gattgcctct gtagcctctc ggccctcaga 60
 taaccatgta tggatatgt ggatgatatg gccaatggca tggctatcaa tggtagtagc 120
 atgggtttat ggatcatctg cgtttgcgt cgaaagtctc aagctgaaga agatcatgat 180
 gcaaacatgg ctgataccaa gatacaactt ccagtacagc ctgattaggg agaggggaatc 240
 catcaatagg ttaattgagc aggcaatatc agatgcggat caaagagggg tcaaagtgtc 300
 cagtcttggg cttttcaatc aggaaagaca actcaatgga agtggtgaat tatttacaca 360
 aaaatatcca aaattgagag ttcgacttgt tgacggaagt ggcttagcaa cagcagttgt 420
 tctcaagagc a 431

<210> 9615
 <211> 388
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-002-Q1-E1-A12
 <400> 9615

attccccggc tgaccaagca gcaccgagat ggctgctgcc ttctcctcca ccgtcgggtgc 60
 cccggcttct acgccgacca acttccttgg gaagaagctc aagaagcagg tgacctcggc 120
 cgtgaactac catggcaaga gctccaaggc caacagggtc acagtcatgg cagcggaaaa 180
 cctcgacgag aagaggaaca cggacaagtg gaaggggtctt gcgtacgata tctccgacga 240
 ccagcaggac atcaccagag ggaagggcat cgtggactcg ctcttcagg cgccccaggg 300

cgacggcacc cagcaggccg tcctcagctc ctacgagtac gtcagccatg gactcaagaa 360
gtacgacttc aacaacacca tgggaagc 388

<210> 9616
<211> 448
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-A2

<400> 9616

gggtcgactg atgcggtgag tcataggagc gacaactttg atatagctaa tggacatggt 60
catttcctta tcaagtctac atctgatctt caggaagctg tatcttcttg tttcgggaaa 120
gcattggtga ccagcagtgc tctcatgctt gcgatgccgc ccagttgctt ggcagaagaa 180
tgtgacccgg ggtactctct tcctaacatg ccgctgctgt ttgcgatagc catggttggt 240
gctactgttg gagggctcct tgcgagacaa aggaaagggg aacttaaaaa gcttaatggt 300
cagctacgtc agataaatgc ttcactgaga agacaagcca agatcgaatc ttatgctcct 360
gctttgagct atgcaccggc tgctagtaag ataccagaat cagaagtcac tgttgatcct 420
cacagacagc gcttgcctcc atatctga 448

<210> 9617
<211> 446
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-A6

<400> 9617

taccggacta gcattcgccg gccgactttt ccactaacia ccccaaaaaa cccaactctg 60
ccttacgtaa agttgccaga gtacgattaa cctctggatt tgaaatcact gcttatatac 120
ctggtatttg ccataattta caagaacatt ctgtagtatt agtaagagga ggaaggggta 180
aggatttacc cgggtgtgaga tatcgcatia ttcgaggaac cctagatgct gtcgcagtaa 240
agaatcgtca acaagggcgt tctaaatatg ggggtcaaaaa gccaaaaaaa taagtgaatt 300
tagcccttat aaaaagaaaa cggattcttg aacctctttc acgctcatgt cacgtcgatg 360
tactgcagaa aaaagaactg caaaatccga tccaattttt cgtaatcgat taattaacat 420

ggtgggtaac cgtattatga aagacg

446

<210> 9618
<211> 430
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B5

<400> 9618

acttttccaa taacaacccc aaaaaaccca actctgcctt acgtaaagtt gccagagtac 60
gattaacctc tggatttgaa atcactgctt atatacctgg tattggccat aatttacaag 120
aacattctgt agtattagta agaggaggaa ggggtaagga tttaccgggt gtgagatata 180
gcattattcg aggaacccta gatgctgtcg cagtaaagaa tcgtcaacaa gggcggttcta 240
aatatgggggt caaaaagcca aaaaaataag tgattttagc ccttataaaa agaaaacgga 300
ttcttgaacc tctttcacgc tcatgtcacg tcgagggtact gcagaaaaaa gaactgcaaa 360
atccgatcca atttttcgta atcgattagt taacatgggtg gttaatcgta ttatgaaaga 420
cgcacaagag 430

<210> 9619
<211> 334
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-B8

<400> 9619

catcgagtag accctgttat tgtgagaatt cttaattcaa gagttatagg gagggactta 60
tgtcaccaca aacagaaact aaagcagggtg ttggatttaa agctgggtgtt aaagattata 120
aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatcttg gcagcattcc 180
gagtaagtcc tcagcctggg gttccgcccg aataaacagg ggctgcagta gctgccgaat 240
cttctactgg tacatggaca actggttggga ctgatggact taccagtcgt gggtgttaca 300
aaagactacg ctatcaaata gagcctgttg ctgg 334

<210> 9620
<211> 441

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB30-002-Q1-E1-C10

 <400> 9620

 aattcccggg ccgaccagaa ctggacactt gtggatgctc ctgatatggt caggtgccag 60
 atgaacttca agcgtctttc gctgaccgac atcaagattg acatcaagcg tatccctaag 120
 aaggcaactt tgatcaaggc catggaggaa gcagatgtga aaaccaaagtg ggagaacagc 180
 tcatggggta agaagcttgt tgtccagaag agaagagcat cgctgaatga ctttgacagg 240
 ttcaagggtca tgttggtctaa gattaagagg ggtggtgcga tcaggcaaga gcttgccaag 300
 ctcaagaagg aggttgctgc ttagattatc ttagtggatg gcatgttgag tttttgttc 360
 caagttggat ctgctctatg ttccagtgtt cttaaagcca gaattagtag aactgttttc 420
 ggagaactac ttcataattt g 441

<210> 9621
 <211> 314
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB30-002-Q1-E1-C2

 <400> 9621

 cgggtctagca ttcccgggtc gacatctaac ggcaaattgg catcgagttg accctggcat 60
 cgtgagcagt cgcaggtcat agacatatat ggagggacgt atgtcaccat atttgtagtc 120
 tatggcacgt gttggataca tagcaggcgt taccagaaaa tctgtgactg acgacaagcc 180
 atcatatggg gctatcgaaa cggaaatctc ggagatttc ctactagctc ctcaacctga 240
 ggttccaccc gttgaagtaa gtgctgtact agctagcgaa tcttctactg gtacatggac 300
 atgctgctg gtct 314

<210> 9622
 <211> 451
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB30-002-Q1-E1-D6

 <400> 9622

attcgccggt cgacgccgga aagcagcctg aaagatcata tgtgagagcc atcttttgcg 60
atctgcaggc ttgcatctct gagcccgcta gaatttttca ttactggacg cggaatattg 120
ttggaggact tcttaattgg gttaattggg taccagcaag ggaaagtgca agaggaactg 180
gagaagtagg agaaacaatc aaggtaatgg aaacaagaac ggcagaaaaa gaatctcctt 240
atgactacaa ccagaaacag tctgatgtgt accatggcat cggcgatggc aacgctggca 300
gcagcgtaga tggatgatgat gataagaagg cgtgccatga cattcgtgat agtggtttg 360
actatgggcc ccaagacatg gctgatgggt actacagcgg cagccattat ggcacgata 420
gggagttgcc accactgagt catagaattt c 451

<210> 9623
<211> 441
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB30-002-Q1-E1-E11
<400> 9623

attcccgggc cgaccatctg acaatcgtaa taagcagaaa agaagcaggg acacaccgcc 60
ttcagctcca cggttaccgc aacacttgtc cagggctcta ccgacgtcaa gagttcactc 120
tgaccacaag gatctgcata tgattgagaa gaagatcagg gacctcgaca aggccaggga 180
tacgttgaag atgaggaacc tgaagaatga gctgactgct gccaggtgta agctcaaaca 240
gtcaagagaa gtgatcagca atggcaagaa ggctctccta gatggtgctc tgatccagct 300
ccacgcgtac aagaaactag aatcacttac tcggctcact atatgagtga gctgaccacg 360
cttttcgccca ttattatact cgatatcatg agaatggtcc gccggtgtaa aacttggtgc 420
tgccatgtct gcaaaataaa a 441

<210> 9624
<211> 438
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB30-002-Q1-E1-E12
<400> 9624

aattccccggg ccgacgaggc cttcatcgct aagtatgatg tcaagctgaa caatgccatt 60
 ctcgccgagg acaagcactt gcccatgtat gatgagttgt ccagcaaggg caatggtgaa 120
 tatattgctg gaggagccac gcagaactct atcaggggtg cccaatggat gcttcaaact 180
 cctggtgcaa caagttacat gggttgcatt ggaaaggaca agtatggtga ggagatgaag 240
 agtgccgcta aagctgcagg agtcactgct cactactatg aggatgaggc tgctcctaca 300
 ggcacatgtg ctgtctgtgt tgttggtggt gaaaggatcat tgattgcaaa cttatctgca 360
 gcgaactgct acaaacttga gcatctaaag aagccagaga actggcacta gttgagaaag 420
 canaatacat ctacattg 438

<210> 9625
 <211> 423
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-002-Q1-E1-E5
 <400> 9625

ggccgacttc tacaggaaaa ttcctaggga tttgacggag gcatcactat ctggcgctgg 60
 attatccata tttgcagcac tggcaatggt gtttttgttt ggaatggagt tgagtagtta 120
 cttagcagtc aataccacca catctgtaat tgttgacagg agttcagatg gggagttctt 180
 acggatagat tttaacttga gctttcctgc gctttcatgt gaatttgcac cagttgatgt 240
 cagtgatgtg ctgggaacac acagactaaa cataacgaaa actgttcgca agttttcaat 300
 tgatcggaat ttagtaccta ctggatctga gttccatgct ggaacgatac ccaactgtcaa 360
 cagacatgga catgatgttt acgaatacca tggatgatgt tcagttgcct tgtcctctca 420
 caa 423

<210> 9626
 <211> 444
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB30-002-Q1-E1-E8
 <400> 9626

attcgcggt cgacaaacat acgtaaccaa ggtcgagagg gggaaccgac ttagcagtct 60

catctatcca ttcatattg ccttgacaaa tgatcccctt gagtatgttc gcaaggcaaa 120
aaggtctatg cataggaaaa agagctcttt agaagtgaag ttataacaag tgggtgttca 180
atTTTTggtg aaatactttg gcgcaaagac aggagctttt atcttccgcc tatttgccac 240
acgtacaagc acactcttat caaatgtcgt tgggccatct gaacatataa cgctatgtgg 300
gcaccaatt tccttcatgg caatcacccg ctacgggcaa ccacaggcac tgatcatgca 360
cttctaaat tacggtagca ctatccgggt aactctggca gttgatgacg aacaattccc 420
agattgtcat aagcttttag atga 444

<210> 9627
<211> 434
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F11

<400> 9627

aattccccggg ccgaccatat attaaaaaag gggaaccaca tccttgtcac acgggctacc 60
ccaatactga atgacgatgt ggttaagcaa tgtgttgaca caagacttgg aagggactat 120
cctcataagg ctgttgacaa gtgagcagca gtcactgcat tgtacgtcca atacgaagcc 180
gacgatcctg ccaaacatga gcatcatcct caatcgagca ccagcgactg ctgaaccctc 240
tagcacttga cccacaggga tgatcacgca ggacgccaag ctgcattcaa gccttatgta 300
agaaatacta gatcatgcta aatgagccat caattgtagt gcttgctgog catgtggcac 360
gcagtttttg tacatatgtg attattcttc gcaagttgta agcctcgaga ttctagtacc 420
agaaatatgt gatt 434

<210> 9628
<211> 439
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-F9

<400> 9628

attccccgggc cgactacctg atcagctcca agtgggtgcc ttgcctcgag ttcagcaagg 60
ttgggtttat cttccgtgag cacaacgcat cccctgggta ctacgatggc cggtactgga 120

caatgtggaa gctgcctatg ttcgggtgca cgcagccac gcaggtgatc aacgaggtgg 180
aggaggtcaa gaaggagtag cctgacgcgt atgtccgcat catcggattc gacaacatgc 240
gccaggtgca gtgcgtcagc ttcacgcct tcaagccatc gggctgcgag gagtccggca 300
aggcctaaac agctcactca ccacgggcca catataaagt gccattgcgg ttttgtcaac 360
tctgacattg ctttgggttg tcttttcca tttatcttcc ttgtatgttc ctaagataac 420
aatatgtgta tgtccatgt 439

<210> 9629
<211> 403
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G11

<400> 9629

aattcccggg cgcaggtga tgttattctt ccgcaacaag cacatcatga ttgatctcgg 60
gacaggaaac aacaacaaga tcaactgggc attgaaagac aagcaagagt ttgttgacat 120
tgtggagacc gtctacagag gagctcgtaa gggccgtagt ctggtgattg ctccaagga 180
ttactccacc aagtaccgtt actgatgat ctgtgccagg ctattcatgt gcagtgtgtg 240
gcctgctctg ttctgtgaaa tgagctgtgt gacccttgat gtaatgtctg tcaactttga 300
aagtgtcgcg taactatgta tctgtatctt aaatacatgt cataaatctg taagcctttg 360
aatcaggacc tgcagtcgat tggattact gattagagtg ata 403

<210> 9630
<211> 440
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G12

<400> 9630

attcccgggc cgacggccat tggatcggtc aaggagcagt tgatgtggac attggagcca 60
atccctctgc tgagggtggt ggtgatgatg aggggtgtcg tgaccaggcc gtgaagggtg 120
ttgacattgt tgacaccttc cgtcttcagg agcaacctgc ttttgacaag aagcagttta 180
tctctcacat gaagcgctac atcaagaacc tctctgcca gcttgaaggg gatgacctag 240

atgttttcaa gaagaatgtt gagtctgccaa caaagtatct tcttagcaag ctcaaggacc 300
 ttcagttctt tgttggcgag agcatgcatg atgatggcgg cgtggtgttc gctactaca 360
 aagagggagc tgctgatcca actttcctgt acgttgacaa tgggctgaaa gaggtcaagt 420
 gctaataccca ctgtatgcta 440

<210> 9631

<211> 359

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-G9

<400> 9631

gagcctccgg atccatccat ccgcccctcg ctgccgctgc gtctcgtctc caccaccga 60
 cttgcccccg gactcaggag gatcgtccga gatgtcagac accgatgagc accacgtcga 120
 gtccaaggcc gaatccggcg cctccaatac ctatccgcag caggctggcg ccatccgcaa 180
 ggggtggccac atcgatcatca atgcccgtcc ctgcaagggtt gttgaagtca ccacctccat 240
 gactgggaag catggtcacg caaagtgtca ctttgttgcc aatgagatct ttaatggaaa 300
 gaggcttgac gatatcgttc cttcaagcta caactgtgac gtcccccatg tagactgcc 359

<210> 9632

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H1

<400> 9632

cgggtcgacc ctttcacta acaaaccag agaaaccaa ctctgcctta cgtaaagttg 60
 ccagagtagg attaacctct ggatttgaaa tctctgctta tctacctggt attggccata 120
 atttacaaga acattctgta gtattagtaa gaggaggaac ggtaaggat ttaccgggtg 180
 tgagatagcg cattattcga ggaaccctag atgctgtcgc agtaaacaat cgtcaacaat 240
 ggcgttctaa atatggggtc aaaaagccaa aaaaataagt gatttttagcc cttataaaaa 300
 gaaaacggat tcttgaacct ctttcacgct catgtcacgt ccatgtactg cagaaaaatg 360
 aactgcaaaa tccgatccaa cttttcgcta tcgattagtt aacatgggtg ttaaactgtat 420

tatg

424

<210> 9633
<211> 431
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H11

<400> 9633

aattcccgagg cgcagctgcg cacgatgggt ctgggattgg gagcgccgtt cttcctcctc 60
gtccgtctct tgctggccgc cggctctgga gctatgccgc aggacaggac gattcacagg 120
aattatgttc tgctcgatct cgatacaatt gagatccgcc caaatggcaa ggaggaaatt 180
agttctagca aaattcatgt ctctgttgag agtggcagca caatatgctc aacttgcgag 240
aacttgacaa ataaagctgt cagttatctt agtgaggaac aaacacaaga tgagatcatg 300
gagattcttc atgggtgcctg ttctcagaca ttctccttag aacagaagtg tcttgagatg 360
gtggactcct atgcaactct gctctttgcc aaggtaactg aaatcgagcc agacgagttc 420
tacaacgggt a 431

<210> 9634
<211> 441
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H12

<400> 9634

attcccgaggc cgacgtactc cttactgggt gggagatggg catggggacg attgtatggc 60
gtccagatag gctctccac aaagagccgc attgccttga thtagttgtc actatccaat 120
gtaaagcggg gatacattcc tgcaggcaaa acaatcatgc cacctttctt aactgctata 180
cggatccact gttcgTTTTG gtccctcaca tcaaagtatc cactgccctc gagacaatag 240
cgtatctctt catcagtatg caagtgtctt tcaaagaagt tcttcagctt ggcctcatag 300
tttggaact tctctggaca tacgtcgcaa atgtccacat aagagtatcc cctggcctca 360
cggattttct tgagattctc gtctttctcc cagtcacag cattcaggtt ccagcttaca 420
acaccaatt ctgaaagttt g 441

<210> 9635
<211> 348
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB30-002-Q1-E1-H6

<400> 9635

gactacctga tccgctccaa gtgggtgcct tgctcgagt tcagcaaggt ttgggttcat 60
cttccgtgag cacaacgcat cccctgggta ctatgatggc cgtactgga caatgtggaa 120
gctgcctatg ttcgggtgca ccgacgccac acaagtgatt aacgaggtgg aggaagtcaa 180
gaaggagtac cctgacgcgt atgtccgcat catccgattc cacaacatgc gccaaagtga 240
atgcgtcagc ttcatcgctt tcaagccacc gggctgccat gaatccggca aggcctaaac 300
agctcacatc acgacatgcc atatataaag tggcaatgca gttttgtc 348

<210> 9636
<211> 388
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-A1

<400> 9636

gggccgacag ctcgacgaag ggagcggcga ggcagcgggc agctgcgtgg cacgcatgct 60
gtgctcgccg tcgagcagct ggttgccctgt gctggtgagt gcaagcagct cgctggcaca 120
ggaggtgggc tgggccagta ggttgcccg ctgatgggct tctaggtaa actctggtcc 180
tttttgtttt ttcttttatt tatttctgc tctgggtatt gaaatagaat aaatactatt 240
tcatttccaa aaactctgga aatattcaga ggcacatttg agaattattt caactgcccg 300
aaaatgcttc caagattatt tgagcacttt agaattatta tagcacttaa aatgcccmaa 360
ttcaaatact tatgggttgt tcaaaaat 388

<210> 9637
<211> 425
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-001-Q1-E1-A11

<400> 9637

aattgccggc tcgacccaac catgaaacag tgggaacaga tcaggcagct tatgagatca 60
aaagcattgc tgccattctt tgacagtgc tatcaaggat ttgcaagcgg aagccttgac 120
aaagatgccc aatcagtgcg catgttcgtc gctgatgggtg gtgaattgct catggctcaa 180
agctacgcca agaacatggg attgtatgga gagcgtgttg gtgctttaag catcgcttgt 240
gggagtgcctg atatagctgt taaggttgaa agtcaactta agcttgtaat taggcctatg 300
tattcgaacc ctctctttca tgggtgcttct atcgtggcta ccatacttaa cgacagtgc 360
atgttcgacg aatggactct ggagctgaag gccatggctg atangataat tagcatgagg 420
gagca 425

<210> 9638

<211> 459

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-A8

<400> 9638

ggtaccggtc tagaattccc gggtcgacag acgacagaag ggtatccaat gcaatttatt 60
ttgcaaaaaa agaaaagtgt acaaaaatga atatgcatgc atgtacatct ccagcacctt 120
actgaaccta actgaacttc agactaaaga agtacaattt acttggttca gactaaagaa 180
gtacaattta cttggcttta catatgaaga agcagaaaaa gaaccagact aactgaacct 240
aactgaactt aaacacacaa aaacagtatg atctgccaca ctctccagca ccttacaact 300
gcatgaaaaa acacacaaaa acacctcaa atctattggc tgcttgaaca ataaggacac 360
gagaaaataa ctaaaaaatc ctagagttga ctatagagtt gaagctatta aactttgctt 420
gateccacaca gacaactacc ctaatctctt cagatatga 459

<210> 9639

<211> 429

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-001-Q1-E1-A9

<400> 9639

aattcccggc tgcaccagag tctaaaatgt cgggtgcagat aggcggcaga aagtggtagg 60
gacgaaatcc catgccgttt ggagcgcgac ctccgcctac cgacaacagc agtcgagctt 120
agggtggccg ccgcgataga agttgatgag atgcagagtt gcggaggagt ccgcggcgag 180
tgggtgggga tgaagtgggc gaggggtttc ttttttcctt ttgcatgtgt gagtgaacac 240
acacggttcg cagaggcgac agagatgaat catgtgcgat agtaaatac cgagattgaa 300
tggcaatcca aatttccttt gtcctttgtc catgagtttt ttctacgatg aacataacct 360
tgctaatacac cgtgttcaaa tttggcactt ttccaggttc atttacanta ttttaaggat 420
tatgtgcat 429

<210> 9640

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B10

<400> 9640

ggtaccgtat caggaattcc cggctcgacg agatgacgaa gcgcaccaag aaggctggaa 60
ttgtcggcaa atatggtacc cgttatggtg ccagtttgcg taagcagatc aagaagatgg 120
agggtgtctca gcaactccaag tacttctgtg agttctgtgg gaagtttgct gtgaagagga 180
aagcagttgg aatttgggga tgcaaggact gtgggaagggt gaaggctggc ggtgcttaca 240
ccatgaacac tgccagtgcg gtcactgtca ggagcactat ccgtcgcttg agggagcaga 300
ctgaagcata agttgctact agtgttttgt cctagtgaat catctgggat tttgcagttt 360
agacgatact ttggattcag ttctgttggc tgtttagtca aggattatct ttgtacttgg 420
tgcgatgatg ttctgttatg 440

<210> 9641

<211> 330

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-001-Q1-E1-B11

<400> 9641

gtcgacccga tgagattcta ccgccaacgg agttctcaag gccaaagaga aggcgaagag 60
 tgtggaaaat catcatctgt cccgggcagc ggagctctac gccttcatct cttccctctt 120
 ccctgtgccg tcgccttctc tcaagtgcc tttcctgggg tgggtcttct tgtagtcggg 180
 cgccttgtag tccggcgtgt cgcggagccc cagcttcgac aggacgaggc agtacgaatc 240
 ccagtcgggc ctgcgcaggt acttgaggta cttcttctc ctctggacca tgtcctgnag 300
 cccctttcga gagtgccttat cctttttgtg 330

<210> 9642
 <211> 435
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-001-Q1-E1-B12

<400> 9642

ggtacctgtc aggaattgnc ggctcgactc ccacataaaa cgattgctat ctcatcgaaa 60
 catcaggaca ccttcgcctc tatcaagtgg tatcagattt ccagggttgct cggtagatt 120
 ttatagtttt tcatagttaa gatcgagttt gttcttcata cctatagtcc acgaaaaaag 180
 ccaaaaaaat tagggtagt tcatcctatc cgaaccaatc tgagcctttg cataaccttt 240
 tgtgtatttg ccttgttcaa tttgcggttg catcgctgtg tccagttgct ggtcttagcg 300
 tctagtcctt tagagtttcg agttctgttc acagggtgtc acgtcgccgc tgccatatat 360
 caccactgca tcatcatcat cgctgctgcc atataccacc accacagcat cttcatcgtc 420
 gctgcatat aacac 435

<210> 9643
 <211> 444
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-C10

<400> 9643

ggtacctatc aggaattccc ggctcgacct cacaacaaa accggctggt ggaagcgggc 60
 ctgtcgccgg tattaaagga gggccagccc cagggtgtgt cgtaacgaaa cactgaacc 120

cgatgagagc tgtgaagggg gctccgtcag ctcttgccgc taacaagaga aaaagagagg 180
acaccaagaa gccaaggtg gttaccaagg aggaggaggc ggcactcaga gcgcgggaag 240
cagctcggaa aagagtggag gacagggaga agcctcttat gggattgtac aagacgtact 300
gagttgtcaa tgctcccaag ctcaaggtgc gcgccagtc gcgctaaaac agtggaaatg 360
ctgatggatg gaattgctct gaaagtaaag attgggagaa cagcgccgag ccccgagctc 420
ttgagcgtca gtgacacata catg 444

<210> 9644
<211> 157
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-C5

<400> 9644
ggtacaagtc tagaattccc gggccgactg gtggtggagg aggagcgtgg caatcccgtg 60
gggcttcgcc aagcaccatg ggagaagagg agtagggaga ggggcagggc tgcaccaacg 120
agagatcaaa tcatgtgtta tgggcaagag atggtgg 157

<210> 9645
<211> 445
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-C6

<400> 9645
ggtaccggtc tagaattccc gggtcgacgg agaagaaaca gttgaacacg atgcgggaga 60
tcaaggtgca gaagctcgtc ctcaacatct ccgtcggcga gagcggcgat cgctcactc 120
gagctgccaa ggtgttgag cagctgagcg ggcagtcgcc agttttctcc aaggcgaggt 180
acactgtcag gtctttcggc attcgtcgta atgagaagat tgcttgctat gtgacgatca 240
ggggtgagaa ggcaatgcag cttctcgaga gtgggctgaa ggtgaaggag tacgagctct 300
tgaggaggaa cttcagtgac actggttgct ttgggtttgg tattcaggag cacattgatc 360
ttggcatgaa gtatgacca tcaaccggca tctatggtat ggacttcttc gtggttctgg 420
gaccagctgg ataacgcgtc tcccg 445

<210> 9646
 <211> 373
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-001-Q1-E1-C9

 <400> 9646

gacgggtcta caacattcag atccgatgt attttgcaaa tctctgtgtc tccctctttg 60
 acttgatcac ggacggaatt gaagcatctc ttgatgtgtt tggttctctt gtgaaatctg 120
 gattccttcg ctaaggcaat tgctcaagta ttgtcacaaa agattttcat tggacccatt 180
 gcactaggta ttacacctag atcggatatg aactccttca tccagactcc ttcatttgat 240
 gcttccgaag cagctatgta ctccgcttca cacgttgtca caccctagct agttcaagca 300
 ttagagtgtg catcatgttt aaatttctct taaatttgaa atggggaagg canaaacccc 360
 caacaccccc cct 373

<210> 9647
 <211> 434
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-001-Q1-E1-D10

 <400> 9647

ggtacctatc aggaattcnc ggctcgaccg agaagacaac agaagggggc ctgatcccct 60
 ttctcactcc aaaattgctg ccgccggtag ctcccatcag cttgattcct tgattcagtg 120
 ccttgagctt gctcgtcctc acctacagcc agccccgcag cttgattcat ttgtgcagcc 180
 ataggggtgac cttcgacggc ggctgggttg tctcctgatc tcctcgtacg cctcctcggt 240
 ctctccttag gctggtaaat ggcgatggag aggtagcagg gcccaaggtg tagctgcgca 300
 agggaggagg tgagatcatc aatctgcacg atgttggtgc tgtctatgtc cgtgcagggtg 360
 atgttggcgt ggatttcgtc tccaacagct gctttgatcc atcttttagta tgaggatggt 420
 ggagatgttt tctg 434

<210> 9648

<211> 439
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-001-Q1-E1-D11

 <400> 9648

```

ggtagcgcac aggaattccc ggctcgacag agaggtcaag agaaaggcgt gcacttgtgt 60
ttctgtagtg gcttgcattg gaatttggaa ctggctagcg ttggtacttg gaatgtttta 120
caggagatga agtgttgctt ggatattccc ttgactaata ctatttattg ccatttaaga 180
tatgttctgg ggccccaaaa atttaggggc cctgtgccat ggcataggct gcacctgcct 240
gccatacggg cctagtataa taaaaacttt catatagagt gcattaaata ctatgagaag 300
tttgatactt gatagttgtt ttgagatata aatatggtaa tattagagtc gtgctagttg 360
agtaatagtg gaattgagaa atacttgtgt tgaagtttgc aagtcccgta gcatgcacgt 420
atggtaaacy ttgtgtgac 439
  
```

<210> 9649
 <211> 440
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-001-Q1-E1-D12

 <400> 9649

```

taccgatcaa gaattccccg ctcgaccagt tagtcaacct tgcagagggt cgttctcctg 60
gaaaaccac cctttattct ctcctaagta cgatggagtt ctcgaagaaa ggaggccgac 120
ttcatcatga tgacctgaag cagagaaatg aagacatcaa cgtaatgaat cgacctcttc 180
gaggagagca actaagaccg agaacactca ctagaatttc gtaaccagaa ccttcccctt 240
acgcatttta aatcttagga cgagatttct tgtagtagag gagaattctg acaccccgat 300
agttaagcta cagtaaacca ctgttaatga tgccagggtc tcaaaattaa aattttgcta 360
aaccttgctt gtttcaaatt agttcaaata caaattcaaa taacaaatca aattatagtt 420
tcataaaaca atgaattaca 440
  
```

<210> 9650
 <211> 448
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-D6

<400> 9650

```
ggtaccggtc tagaattccc gggtcgacgg agaagaaaca gttgaacccg atgcgggaga   60
tcaaggtgca gaagcttgct ctcaacatct ccgtcgggga gagcggcgat cgcctcactc  120
gogctgccaa ggtgttgag cagctgagcg ggcagtcgcc agttttctcc aaggcgaggt  180
aactgtcag gtcttttggc attcgtcgta atgagaagat tgctgtctat gtgacgatca  240
ggggtgagaa ggcaatgcag cttctcgaga gtgggctgaa ggtgaaggag tacgagctcc  300
tgaggaggaa cttcagtgc actggttgc ttgggttgg tattcaggag cacattgatc  360
ttggcatgaa gtatgacca tcaaccggca tctacggcat ggacttcttt gttgttctgg  420
agcgagctgg ataccgtgct tcccgccg                                     448
```

<210> 9651

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-D8

<400> 9651

```
ggtaccgagt ctagaattcc cgggccgacg tcgaggtaag acgaaggaac ctacactatc   60
atcaatgctg aagaagaaag ttaccgcaaa agataggatt tcagggaggc ttctaaatgg  120
tcgtgctagg gacgcaacaa taagagaagc ttctaatact gaggatatga cctacaggga  180
agcattccca aatcagtggc agtgaaagca ccctgagtag gtctttcttc ataattaaca  240
gttttgtttt gctgtgctgt tgcattgctt aagtgttga agtacgcggg gactgaagc  300
tgcttcgaac ccgtgcatgg aaaatttcag aaaggaaagt cgtagaccat ttgtattggc  360
agtcggattg agaatccaaa tcagaacaac gcgacagtaa ataagcactc gattttgtga  420
acatgccaa gagtttgcct ttgttgcccg acg                                     453
```

<210> 9652

<211> 173

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E4

<400> 9652

catcatctca tcgaaagacg ggacaccttt gcctctatca agtgggtataa gatttccagg 60
ttgctcgggtg agattttaca ttttttcata tcttagatca attgggggtcg tcatacctaa 120
ctcgagttgc agctctatac gatcgatgct tattgtacac gtgcatgcga cgt 173

<210> 9653

<211> 456

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-001-Q1-E1-E6

<400> 9653

ggtaccagtc tagaattccc gggccgacgt aggcgggatg atgacatcgg ctcccatgac 60
attgtgtggc gtgaggccaa tggcgacata gggcgtcgaa caatatacgg aacgactgat 120
gcgcgcgaga tagtgccgca taccggatcg ccctaaaacg acggccttta tatggaccaa 180
actgtaaaac ctgccgtacc aaatattggt gtcgagtaga aaatactggt tgaaatatta 240
taaatatgcy caacgcgaat aaccaaaca attacacctg aggattcatc cgacaacgct 300
caaaccaatg gaggatgagg ctataatgct cgtgggacgt cctgnccgga gtgcctgaag 360
actacgttgg gccgaatagt atacgaaacg accgatctga acacgagggt tcttacgcat 420
aggtcggctc gcccgattga cacagatgga aaacca 456

<210> 9654

<211> 367

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E7

<400> 9654

attcccgggc tgacgggggg atcaatgaga ggtccacaaa gcagtttatc tgtgaggaag 60
cttgccgggt caaggttctg tgggtgtttcg tctccttctc cgacggcgctc ttgcgcggcg 120
gcggtcgtg gagacgatag ttggcgtttt tgtggagggg tctccaaggt cttgtttgta 180
atttttcctt ttatggggctc ctttctgcaa agtgtcagga catctgggtgc ttctggagca 240

ttctggctgg gtctgtctgt gtgtgggtgt aactatgtat cctgattgtt ttattaaatg 300
acagatggta ccttctcaaa agaagaatgg ttgccaacat tttccctgcc tgattagtca 360
ctccctg 367

<210> 9655
<211> 427
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-001-Q1-E1-F10
<400> 9655

aattcccggc tgcacagga cgacaaagg gtgttgctcc aaatcttcac caagccagt 60
ggggacagga caacgccgtt cctggagatg atccaaagga tcgggtgcat ggagaaggac 120
gagagagggg aagagtacca gaagggtggc tgcggcgggt ttggcaaagg caacttctcc 180
gagctgttca agtccattga ggattatgag aaatcccttg aagccaagca atctgctgca 240
gttcaggcat cataggatag aagctggaat tggagccgga gaagctgac cagtgccttt 300
tatcatggtc tcatggagca aaagaaaca tgttcattgt aatatgagac gcacaattat 360
atccgatgtt ataattggtg aagctgaaga cagatgtatc ctatgtatgt tgggtgtaat 420
agatggt 427

<210> 9656
<211> 348
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-001-Q1-E1-F6
<400> 9656

attcccgggc cgaccccgaa acagcgcctt cttgttgcca tgctttcgga ccagaagttt 60
atttcaaatt acctgaaagt taacagagag aggctgagca aggcgtacaa tctgctcggt 120
gatgctttga aacaggtggg catcgagtgc ttcaagagca gcggagggtt ctactgctgg 180
gcagacatga gcaagttcat ccggtcttac agcgagaaag gggaacgcag tctttgggac 240
aggctgttgg aggaggcgaa tgtcaatgtc accccaggtt catcttgcca ttgcattgag 300
cctggttggg ttaggtgctg tttcacaacg ttgagggagc aggatatt 348

<210> 9657
 <211> 442
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-F7

<400> 9657

gaattcccg ggcgacgagg ccttcacgc taagtatgat gtgaagccga acaatgccat 60
 tcttgccgag gacaagcact tgcccatgta cgatgagttg tccagcaagg acaatgttga 120
 atatattgct ggaggagcca cgcagaactc tatcagggtt gcccaatgga tgcttcaaac 180
 tcctggtgca acaagttaca tgggttgcac tggaaaggac aagtatggtg aggagatgaa 240
 gagcgccgct aaagctgcag gagttactgc tcattactat gaggatgagg ctgctcctac 300
 aggcacatgt gctgtctgtg ttgttggtgg cgaaaggcca ttgattgcaa acttatctgc 360
 tgcgaactgc tacaaatctg agcatctaaa gaagccagag aactgggcac tacttgagaa 420
 agcgaaatac atctacattg ct 442

<210> 9658
 <211> 403
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-G10

<400> 9658

ggtaccagtt aggaattccc ggctcgacgg cagctaggcc gggcaaggta gatgcagcag 60
 tacagctctg aagatggatt ggtggcaggt ggctgtggcg gcctcatacc cggcaggcgt 120
 cctggttgag tagtgcgccg gaccggtggg tgccccatac tcggcatgcg tcctggttgg 180
 gacctcaggt cttagatggt aggtttggct gcaaggatg tctggtatta ggtccagact 240
 atcagcatcc cttcaacaac tggatatgaa tagcaacaga tgttgcttag acggtggatt 300
 tagtcttact gttgtattac tttgtaaggc cttgtgtgaa ttattaataa agtggctgca 360
 tgcacgtct aaatataaag gccaggggtc tttctccttt tct 403

<210> 9659
 <211> 279

<212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-001-Q1-E1-G11

<400> 9659

ggtacctatc aggaattccc ggctcgacta agttagtagc ttttatatag tgagaaatac 60
 actatacacc attttattca gtccctgggtg ccaatcatat cacctgggct ggaagttttg 120
 ttgtactttt tggctctgtag catcacgaga cttgtgtgtg tcgtgaacaa tgcaatgatg 180
 catgttttgg ctcatgttg atttcagctt aatgcttatt atttggacta aaaaaaaaaa 240
 aaaacaaacc aacagaaaaa aaantcccat caaggggac 279

<210> 9660
 <211> 424
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-G12

<400> 9660

aattcccggc tcgaccccga aatgaaaggc atctacgaca actactctgt gaagcgccag 60
 atcgtcaatt ccggacccat catcgctcg cagctgttgc tagtggatga ggtgatcagg 120
 gcagggcgaa acatgaggaa accaacctaa acctagcgct cgccccctcc aggccgagaa 180
 gactttttgt ttggctgttt ttctctgtgg ggtgccgagt acgtagcgag tagtgatgtg 240
 gtgggggtgga atgcttgagt gcaagagatt gtacttgtaa caaccctcgt gacagtttgt 300
 cgatgtgttt ctacgctggg gtttgtatgc agaataatatt cgtgttggat caagttgagc 360
 agctatgtat tttttgtgtg ctgggtggtga ttggattctt gtttgtgttg agcaaagcct 420
 gcct 424

<210> 9661
 <211> 463
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-001-Q1-E1-G6

<400> 9661

ggtaccagtc tagaattccc gggccgacga ggccttcctc gctaagtatg atgtgaagcc 60
 gaacaatgcc attcttgccg aggacaagca cttgcccatg tacgatgagt tgtccagcaa 120
 ggacaatggt gaatatattg ctggaggagc cacgcagaac tctatcaggg ttgcccattg 180
 gatgcttcaa actcctgggtg caacaagtta catgggttgc attggaaagg acaagtatgg 240
 tgaggagatg aagagcgccg ctaaagctgc aggagttact gctcattact atgaggatga 300
 ggctgctcct acaggcacat gtgctgtctg tgttggttgg ggcgaaaggc cattgattgc 360
 aaacttatct gctgcgaact gctacaaatc tgagcatcta aagagggcag agaactgggc 420
 actagttgag aaagcganat acatctacat tggctggctt ttt 463

<210> 9662
 <211> 444
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-001-Q1-E1-G9
 <400> 9662

aggtaccgat cacgaattcg cggctcgacg tcggtgctac gggaggggaag gctgtagtgg 60
 aagagctcag gaaactcacc cagctgcgca agctcggagt gtctggcatc aacaggcata 120
 acagcaagga cttcttctct gcaacctcag gccttggtgca tctggaatcc ttgctgggtgc 180
 ggctgggcaa ggacagccaa ggctgcctgg acgaaatcac cctgccttgg gagaacctgc 240
 ggagcctcac actccacggg cttcaagaca agctgccacc atcaaagaac ctcaggaagc 300
 tcatgaagct ggatctggag atggacgcct taaaggaaga cgacatcaag ttcctagcca 360
 acctaccgga gctatgcac ctcgctctcc gggtcggaca gcttcaggat ggtaagctcc 420
 attttcacgc cgagatgtac gggg 444

<210> 9663
 <211> 401
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-001-Q1-E1-H6
 <400> 9663

aattcccggg ccgacttcac aagtagtgag ggttcaagtc cctctatccc caaatcctct 60

tttattccct aactatacta tattattatt atttatcctc ttttttttct ttttatcaat 120
 gggtttaaga ttcattagct ttctcattct actctttcac aaaggaatgc gaagagaact 180
 caatggatct taccctattc attgaataga tttctttttt attagagtat cggcaagaaa 240
 tcttggttat tcaactctatt ttttaagtttt atttaagtaa accatgcaca atgcatagga 300
 ctaccccccc attttcaaata ttttaatttg aaatacttta attaattttt agtcctttta 360
 attgacatag atacaaatac tctactagga tgatgcacaa g 401

<210> 9664
 <211> 416
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-001-Q1-E1-H7
 <400> 9664

aattcccggg ccgaccgtgt cctcgtcctc atcctcggcg ctgccctcaa ggttgtagta 60
 ctcgtagtag tggatgcgct agagctcgcg ttggtactcc atcaccgatt cctcgacgga 120
 caaactcttc tctacctga cctcggccac gcgcaactcc tctctccgac gctcctcgat 180
 ctccgctgcc tcttgcatct ccagctctcg ctcgatgac tcatgaggaa gtaggtgctc 240
 catggccacc ggtgcctttt tggacgtggg ttgcatgctg gatttcgagg tggcctggaa 300
 tatcttggcg tgtgcatcct cgatcttggc gggatgccct cgacactggc caaggcaaca 360
 tcggcggcac ggacgacagc tcgagcgctg tcggcgtttg catccatcgt cgcagc 416

<210> 9665
 <211> 445
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-001-Q1-E1-H9
 <400> 9665

ggtaccgatc aggaattccc gggtcgacag acgacagaag gggatcgaat gtatcatctt 60
 acatcaacat ggtttgcat acattgagga acacaattcc gaaagccgtt gtgcattgcc 120
 aagtgaagga ggcaaaaaga aacttgctca accgtttcta tgcgcatgta ggaagcaag 180
 agaagaaaca gctgagcgcg atgctggacg aggatcccg cttgatggag aagagggatt 240

ccctcgtgaa gaagctggag ctgtacaagt ccgcgaggaa cgagatcgac tcggttgcat 300
 ggaaatgata tgatctgata cgatagagcg tttgctggctg gaacagatag aacatgtgta 360
 gtagagatgc tccattcgtt ttgcatatgc tttgtacacg ggctttgctg ccgagtgttg 420
 ttttgtggct aacaccgaga catgg 445

<210> 9666
 <211> 437
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-002-Q1-E1-A10
 <400> 9666

accggtcagg aattcccggg tcgaccccag tcacaccgat ctggcagagt gatggtggtc 60
 gtggtggcgg ttttggcgga ggtggactac gtggtggtgg ttttggcgaa ggtggactcg 120
 gtggtggtgg tggttttggc ggaggtggac ttggcggagg tggactcggg ggtggtggtg 180
 gttttggcgg aggtggactc ggtggtggtg gtggttttgg cggaggtgga ctcggtggtg 240
 cttgatgtcg atgatgattc cgtgtatgcg gccgttgtgc catgcctttc atgttttaac 300
 ttttatgatg tttcatgtct tgcactactt ttatgttcgt gactttcgct agtgatgata 360
 ttttagatgat gaacttgact atgttttaaat gatgatgatg aactgtcata tttcatatta 420
 ttctgctttg aaatgct 437

<210> 9667
 <211> 459
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-002-Q1-E1-A2
 <400> 9667

cgggtccagaa atcccgggtc gacgtatcat atataggcgc cttctgtcca atgagtggat 60
 gacatctgtc ccaacgatga ccgacacgtg tttcctccag ccaatgatga ttttacacgt 120
 ggaaaatccc cattggctcg ggctgttaac ggggttatcg aaacccgacc cgatagctta 180
 acggcgttcc gttacggtgg atgccgcgtg tcagtcaccc ttgacgaaag cacttctgtg 240

acgcgcgatt tatcgtcatg gaagtggaca cttccgtgat gataattttg gtaatgtcat 300
 ggaacacttc tacgacagca caggtatgac tatcttgatt ctgtcataaa tttgtcatgg 360
 aggtacatgc atgacaaaaa aatgcgacct actgtgacaa acacgtatca tcacggaagt 420
 gtantttttt tgtagtgcac ggggtggcccc gatgtcaac 459

<210> 9668

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-A8

<400> 9668

attcgcgggt cgacaagagt gaggacttcg accgctccag cgctcccaag gatttccagg 60
 tcagcgggtg gtaccaagga gcagacgacg attcagacaa gcaaccacgc acgccgacaa 120
 gcctaggaga gttcacttac gacctcgaga agagcaacgc ccagaccttc cagctagaca 180
 gaaccaccgc cgacgcacat gtggtcaaca ttgtccggct cgacttctcc tcgaaccatg 240
 ggcagcctga gctgacgtgc atctaccgct tcaggggtgca cggcagcgag cctggctctc 300
 ttcggcaccg cggcacgtg aggcctgac tagttagtac ctgtgtgcct gggaccatac 360
 ggtcttccct ctttagcctt gattgaagac ttgaagcccc tgcgagacgg taggttcaag 420
 ttgattctaa tctgtagcat aatg 444

<210> 9669

<211> 439

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-A9

<400> 9669

acggtcagga attcccggct cgactccac ataaaacgat tgctatctca tcgaaacatc 60
 aggacacctt cgctctatc aagtggatc agatttccag gttgctcggg gagattttat 120
 agtttttcat agtttagatc gagtttggtc ttcataccta tagtccacga aaaaagccaa 180
 aaaaattagg gttagttcat cctatccgaa ccaatctgag cctttgcata atcttttgtg 240
 tatttgctt gttcaatttg cggttgcac gtcgtgtcca gttgctgggc ttagcgtcta 300

gtcctttaga gtttcgagtt ctgttcacag gttgtcacgt cgccgctgcc atatatcacc 360
 actgcatcat catcatcgct gctgccatat accaccacca caccaacttc atcgtcgctg 420
 ccatatnaca acaacacat 439

<210> 9670
 <211> 418
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-002-Q1-E1-B12
 <400> 9670

accggtcagg aattccccggg ccgaccaagc acagaaataa gagaggacac ttctctctat 60
 taattaattg gctacctaac acaatatatg aaacacctta attaaccata caaaaccccc 120
 aaatccagcc cccccccctt ttagaaaaaa aacaaaaacc ctagccccctg aacagctgac 180
 gcgtggatgc ctattggcac tagtagaaaa gggggcaaag gtccaggccg ggtcagccca 240
 ttagtcccgg ttcagtccag aaccgggacc aatggggcat tggacccggg tcatgagccc 300
 agggggggcgg ccggggccacg tggggccattg gtcccggttc gtctggacct tttggtcccg 360
 gttggtggga cgaaccagga ccaatgggtc tcgctcctgg cccaccacca ttggtccc 418

<210> 9671
 <211> 438
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-002-Q1-E1-B3
 <400> 9671

cgggtccagaa atccccgggtc gacaaaattt gttcagacaa ttatgaacat tctgaagaga 60
 ctagctgatg agggggcagc gcccgcagcc ccagagaggc agagagagac ggagctccaa 120
 ccaaggaata atagttcaaa cagcaacgtg acatcagcag gttcctccag cttaacctct 180
 tcagagaatg gacctgaata ttcaagcccc gtagcacaat gatgagtgga tccctagctt 240
 ttagctgaaa gctctactag ctgtagctgc aacggtttga gcctaggaga ttgaagtgcc 300
 ttgcggtttt tgtacgctcg cttgcccttc ccaacctgat gtatgaaaat tatgtggaag 360
 agtccacagc tgttatataa ggaattttgg ggctgggaat cgtttgtaag aaacattgta 420

gaacaacttc cgtttcac

438

<210> 9672
<211> 444
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-B8

<400> 9672

attcgcgggg cgacgagcat gtgcagctgg gtgctgttcc attcccgagc gatgttttga 60
ggctgcagaa gcttggagtt tgtggtgtgg tcacactaaa cgaatcatat gagaggcttg 120
tttccaagtc actgtacgag gctcatggga ttgaaaacct ggtgctacca actagagatt 180
acctttatgc gccatcattt gacaaccttt gcaaggctgc tgacttcac cagagaaatg 240
cttcatgtgg taagctgact tatgttcact gcaaagctgg acggggacgt agcaccaccg 300
ttgttctttg ctacttggtg caatacaaac aaatgacacc tgctggagct tttgaacatg 360
ttcggtcatg caggccaagg gtgttattgg cttccgcaca atggaaagct gtccaggaat 420
tctaccagct tagagtgaag aaaa 444

<210> 9673
<211> 408
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-002-Q1-E1-C11

<400> 9673

accggtcagg tattcncggc tccacttgga tctcagcagt catttgata tgcttgttga 60
tatgcttcgg aagcatcaca acatgtggct acattgtggt tcaacttctc caagtgtcat 120
accaagaccc agtctaccat ctgctactga actcccatag caagaagacc tgaaaactca 180
ttgaagggat atgttcttgg tacacaataa tgtcccctct gttcataaag gtgccacaat 240
aaagggtata ccagagtagc aattagagaa gtttttctt tgtggaatgg aatgatttct 300
taacgaagtt gaagctcctt gttatggtgt caaagggtgt tttctaattg tatatcaaat 360
ttaattgctt ggcagatgat agacaacaga tttttctttt ttacgaat 408

<210> 9674
 <211> 419
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-C12

<400> 9674

ttccccgggtc gacccccgcc tcactagaca ttctccgcac gcttttagccg tccgctatac 60
 actggagcct ctggaggcct gcgctgaata tgcccaaacc atctcaaacg atgttggaca 120
 agctttctct caattggtgc taccccaact ctatctcgta tatcatcatt ccggactcga 180
 tccttctctg tgtggccact gtaaaacaaa agatactaca gtgtaaaaat actttgagaa 240
 ttacactata aaatcttttg ataatcacac tgtaaaactt tgagagaact cactaaggaa 300
 ttagagtgc aaatcttttg tgaattacca gtgagatata gtgggggaaac tatccgtgta 360
 gtaaagaaaa attaccagct cattacggat atctctgtgg tatgatgagt tctctccat 419

<210> 9675
 <211> 363
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-C5

<400> 9675

attcgcggt cgactctgag agagaatggg cctatcgta aataacggag atcgagacca 60
 cgaaacacca cctcttttac ctgctcgag aaatggacaa gagatacccg ggccgtagat 120
 acacgtcaaa taacaaggag ctgatccacc atcttttcaa acacgtcgag gctaacccca 180
 gcgatcccct ctggcgccac actctcgaa gagaaagact caataattgt gtgatatatg 240
 gaatgccaac gctgatggcc acttggttgt atttgactg ggagggttg aaaatatgtt 300
 cgctttctta cttggaattg ggcactagtt ttctagctca atctcttgag tctagatgat 360
 gct 363

<210> 9676
 <211> 445
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-002-Q1-E1-C7

<400> 9676

attcgcgggt cgacttacgt ataaaattag gatatgtccc ctcatgtgcc agttttgaga 60
tatcttagaa gttcacgacg tggttttagt tcttgcacct tttccacct ttctgtagag 120
atttgagtaa aacttaaatg tctagatgca tataagcttg tgagttaatt aatgctaact 180
tgatggtcca aactaaattc tgcaaatatg accatgacag aaagataaat ggaggtttag 240
aggcagagtg gatgcctgca ccaactttat aggttgaact acgttttgct agatgactca 300
natttcagaa cacgagcatt aatttttggg aatgcagtta acaacagaat caagtcaaga 360
tgaaaaatgg agaactattc aatattgagt ttaattccct tcttgcagag caacagagat 420
gagtgaagag attattaaat attga 445

<210> 9677

<211> 224

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D10

<400> 9677

accggtcagg aattccccggg tcgacagaca caaggtcgtc gatgatcgtc agcatgatct 60
ggagcttctt gatgccataa cccacaggca taagcttaga tgcaccccag gtgagaccct 120
ccatttgaac actgcccaga gcctcctcca acttcttcat gtcagtctca tcgtcccatg 180
gcttgatgtc catgaggacg gaggatttgc cactttcttt ctte 224

<210> 9678

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D11

<400> 9678

accggtcagg tattccccggg ccgccgacga cagaaggggc agggcaactt ttcaagtggc 60
atttccttta taatagtagg tgatgttggc ccagccgacg aaccctagct actatacatg 120
gggagttggg gagtagtcgc atagaagaaa acccgcatgc agcaacctgg ggagctggaa 180

cagtacaaga agttatacct caggtgggcg agatgtcact taggcgggtg ggcgggatct 240
 tcccacagaa caagggcgca gaggaccttt gtccgcgcca gcgccggctc cgagtggacg 300
 gtgcacaacg gcttcctcca tcgtcgatgg taacaacgtc aacgctgcac ctctcacct 360
 cccgcagcgg acggaattcg gccggatctg tgaccaccga tgaggagaga gatagagtgg 420
 aactgtcat cttgttttg 439

<210> 9679
 <211> 461
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D8

<400> 9679

gtaccgatct agaattcccg ggtcgaccga cagaaggagc tataagttcg gggtgccaca 60
 cttgtgaaag tgttcggagt ttatcacacc ataattttgg gatacttaag cccctggtgc 120
 attggccgta ccaaagtgtg cggttgcaac atgtcgtgaa atgaacatat gtatatatat 180
 aaagcaatta aagcaataat aagcaagagc tatgtattgt ttattcaaaa aggtactgca 240
 atggaagcag aacgatacaa atagtgcggt aagcaaggga tgagactatc taacatgtcc 300
 ccctctaggg gtaagctgcg ggatggatatg taaaacaggt ataatgctca taacagagac 360
 cacccgagca cttgacgtgg ccttcgctt ccctggctgt tgtatcgtga gttcggcgat 420
 tcaagtgccg gacaggactg ttcgaagacg gagtcctgaa a 461

<210> 9680
 <211> 423
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D9

<400> 9680

cggtcaggta ttcccgggtc gacttgttct gtatgagtaa atatgttaac ctagtatcca 60
 tgattcaacc cattatgatt aaacatgttt gcaatgacga ttagagatta tagtttctca 120
 tgccatgcat aagtagctag gagtgaataa tgatttatct tagatatcaa catagcgta 180
 aaatgattgt gatctagtat gatgatatgg catcctctc tgaatgttcg agtggcttga 240

cttggcacat gttcacgcat atagttgaat caaaaccaac atagcctcta tgatatttat 300
 gttcatgggtg ttcatatcct actcatgcta gtgtccaatg ttacttatgc ataatgcatg 360
 gttatgatca ttgttgctct ctagttggcc gcttctcaat cttaattgct aaccttcgcc 420
 tgt 423

<210> 9681
 <211> 334
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-002-Q1-E1-E1

<400> 9681

ccggtccaga aatccccgggt cgacagagac cgggacctgc gagaaggcca agatcacgat 60
 gcaccgagtg gttccgtacg tcagggtcccg agtgcttttag ccgttacata cgagcagctg 120
 agattcccaa caacttcagg ttggccacgg ggatcagcaa attcactagc gagtccaagc 180
 ctgagatatg gctagaaggt taccgaatag cagtctagat cgacggcggc aacgacaatg 240
 tggccatgaa gcatgtcneg ctgatgctag agggatccgc tcgagcttgg ctactcggc 300
 tcccgacagg cagcatattt tggtgggatg acct 334

<210> 9682
 <211> 442
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-002-Q1-E1-E10

<400> 9682

accggtctag gattccccggg tcgacttcca ccaaagcgat atccatcatc tcatcgaaag 60
 acgggacacc tttgcctcta tcaagtggta tcagatttcc aggttgctcg gtgagatttt 120
 acagtttttc gtagttttaga tcgagtctgt tcttcatacc tacagtccac gaaaaagcca 180
 cacaaaaaaa ttaggggttag ttcatcatat ccgaaccaat ctgagccttt gcataatctt 240
 tttaggggtt tgctttgttg aatttgcggt tgcacgctcg gtctagttgc tggctttaga 300
 gtctagtctt ttagagtttc gagttctggt cataagttgt cacgccgcgc ccgcaccatc 360

atcatcgccc ctgccatcta ccaccaccgc ttatccgcc a cgcctccgaa tccgtatcca 420
tnnatacaca ccgattcata tc 442

<210> 9683
<211> 198
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-E11

<400> 9683

accggttagg aattcccggc tcgacaagct caccaccgac aaccgggtct accacaaggc 60
ctgcttcagg tgccaccact gcaagggcac cctcaagctc gcgaattaca actccttcga 120
aggagtgtccc aacggaaggc cacactttga acagctctaa aaggagccgg agactgtaca 180
aaagctttta aagcgcac 198

<210> 9684
<211> 441
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-E4

<400> 9684

cgggtcgacc aggacatcaa caacaacgac aaacatatgc agctatcttc ccttggcctg 60
gccagctact gcgacgggga tcgtgacggc atcgccgatg ggcgacatca ccggcgatga 120
caacagatgc ggcttcttca tctcatcatc gacgcatgga tattcttgta ttgatttcca 180
tgcattcatt gtaattgata tctcagagc tagttcaatg aaacagtata atccatccat 240
gcatgccatg gcgaccaaga tggaggcatg cgcattgcta gcgtttccat catcaacaca 300
catcggcgct cacacgcgtg gcaatacaca gccgcggttc ttgctgatgt gcagaataca 360
catgcatgcg tgcgtacctg acatgcatgc ctaacatatt gttttatttt acatgatacc 420
taacatgttg ttggttgatga c 441

<210> 9685
<211> 442
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-E7

<400> 9685

aattcgcggg tcgacggctc gaaaaaacga cagaaggggt ccacatgtat agcaaactctg 60
gcaatcttga acaagccacg cgggcgtttg actttatcca aaaggagggc ctccaaccag 120
atacgaaact ctttacatca atgattagt cctgtattaa cgctggagat ccgaaacaag 180
cagagaaatt ggtaaagaaa atggatgagc tttccatgaa acccagcagg gaaatataca 240
tggatgtgat gcgggcatat gctgagcgta acttagtaga tggagctcaa tcggtgaaaa 300
caaaaatgtc atttgctgga atcgagcccc cgttggagt cttcacattg cttatagaag 360
caaatggacg ggctggcaac cctgattatg catatgaagc gtttgaacag atgaagaaga 420
atgggcatga accagatgac cg 442

<210> 9686

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-E8

<400> 9686

gtaccgatca agaattcccc ggtcgacata caggtagagc gaaagatacc tgagatacca 60
tgaacgcgta taggtcgaga gagatagtcc tacataagca tgactgataa ctatatgata 120
tgaatatctg gattaaaggg gattcaacta tttaaactgg agatcacgac atcgataata 180
tcataacgca catctggtgt atcaaacagt gcataatccat ttgaatttgg gcacatgtgc 240
taatgttata tagtttatca atattggtga tccatagatt cttcaattac atacaatgca 300
tggtttatat gcagttaatg tctacactgg attacactat atgttgcattg tgtgaaacac 360
attagacatg tctgagaagt aaaaaacccg catgatacac acattaattg gcgacactta 420
tcgaggaatg catacattgg atttcaacat aaa 453

<210> 9687

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-F1

<400> 9687

cggtcgacc agcttctga atatagttca gttgaactcg atgtttccgt ctctgaatca 60
aaaaatgtat aattagttcc atatagtgcg caatggattt tgaagcattt aagctgtttg 120
gcaagtctgg tggcatacac tcagtgcagt gtatgctttg aagaaagata taggcacctg 180
gtggatggga agtgcaaatg agatatgact tggcaactca acaagacagt tttggggagg 240
attataacat tacagagaga tgctgagtta gtgcactcat agtggaagtg tttgattatg 300
acattagcga catggtagtt gctgagttag tgttgtcaaa ttgtgaagtg tcaagagggtg 360
tggggaagtc atttcttcaa gcagacaagg acaaaattca agaggctgat gaaacagcac 420
atgatgatca catacaggaa gcac 444

<210> 9688

<211> 435

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-F10

<400> 9688

cggtcaggta ttcccggtc gacgtactcc ttactggctg ggagatggtc atggggacga 60
ttgtatggcg tccagatagg ctctcccaca aagagccgca ttgccttgat gtagttgtca 120
ctatccaatg taaagcgggtg atacattcct gcaggcaaaa caatcatgcc acctttctta 180
actgctatac ggatccactg ttcgttttgg tccctcacat caaagtatcc actgcctcgc 240
agacaatagc gtatctcttc atcagtatgc aagtgccttt caaagaagtt cttcagcttg 300
gcctcatagt ttggcaactt ctctggacat acgtcgcaaa tgtccacata agagtatccc 360
ctggcctcac ggattttctt gagattctcg tctttctcnc agtcattcagc attcagggtt 420
cagcttacia cacca 435

<210> 9689

<211> 442

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-F12

<400> 9689

accggtcagg aattcccggc tgcacatcga catcaccaag aagcataatg ctgggacaaa 60
caaagctgct catagcacca catcgctcaa tacaaagagg tttgatgatg atacagagaa 120
tcttgctcat gagcgtgtgc cgtcagacct gaagaagagc attatgcagg ctagaacgga 180
caagaagctc acacaggcac agcttgcaca gctgatcaat gagaagccac aagtcacca 240
ggagtacgag tcaggcaagg ctatcccaaa ccaacagatc atcggcatgc tggaaagggc 300
tcttggcaca aagctgagag gcaagaagtg aagccgctg catctgacag gagtcgaggc 360
tttcaagaga gcttggctgg gcaangttta cgctaaataa agcttgtcta ctaaataatg 420
cgacttaaga naaccctgga gt 442

<210> 9690

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-F6

<400> 9690

gtaccgatct acaattcccg ggtcgacact tccccacaaa gagacgcaat ttgactgta 60
caattttgat tatacagttt ttatacttcc gagagaaaaa acgcaattgt gattatactt 120
ctatactttc caatagaatg acgcaatttt gatatttccc cataaaaagg ttaaattttg 180
accaagaatt ctgatcatga ttctacttc tttttgctcc tctttttttt ttttttgagg 240
tgctgttgta agaggatcta tttgtgctat ataaaggaaa aaaaaaggag catgaggacg 300
aactcaccat catgtcgagg gaggatttgc cgaggccgtt ctggcagccg tttgcctggg 360
aagagagctg atcgtctcct cttcaaactg atatataggt gctgggggtgc cgccagcaat 420
ggaaactcgg agactgaatc cgaaagaggg cctgttt 457

<210> 9691

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-F8

<400> 9691

gtaccgagtc tagaattccc gggtcgacac gcagatctat ttcccgatcat ctttgaccgt 60
gacacgtgca tgccttgtag ggcgcgggtcc acatgcttgc aggcatagga acaaactctt 120
tggtacctag ctccgtcttt ggcttggcac ttgaatctgc tggctaata caacctcagcca 180
ggcgcttatg tttagctagc tagcatttct tctttgaaat ggggttctaa aagatgggta 240
ggctctggct aggggcctat gggtacgtgt ccttttttgc gggtcacatc ggccggaagc 300
atgggtatgtg tagctagcct gcttctgctt gtaacacatt tcagataatt gtgctgagc 360
tgtacagaat aaagcacgac aaatatatat acatatgtgc atacaagtgg gtgatggata 420
cgtgtcgatc catgcgtatc ggtcctaata agacgcg 457

<210> 9692

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-F9

<400> 9692

cggtaaagaa ttcccgggcc gaccttggat gcagtgatga gatactgact attatagcga 60
tgattcaaac ggggaatatt ttctataggc ctagagaaaa acaggctcaa gctgatcaga 120
aaagggccaa atttttccag ccagagggag atcatcttac cctacttgct gtatatgagg 180
cttggaagc aaagaacttt tcagggccct ggtgctttga gaactttgtt cagtcaagat 240
cgctaaggag agcacaagat gtcagaaagc agcttctaac tatcatggat agatataagt 300
tggtatgtgt cgctgctggg aagaacttca tgaaaataag gaaagcaatc actgccggct 360
tctttttcca tgctgccagg aaagatccca ggaaggctac agaacttgg tggagaaaca 420
gcagtgtaca ttcaccc 437

<210> 9693

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-G10

<400> 9693

accggtcagg aattcccggt tcgacaatgt ttgtaaattc aactgctctt cctgtgcac 60

agccatttga attggtgatg gataaatttg gagtgaaaac aaggctttca gagcagacaa 120
 tgctacctat tgaagcagat atcttgctgg ttacagatag ctcttcaa at gaggattcag 180
 aggcagatga ccagtcctat tatccccctg aggtgtatgc tcaaacttgg cagggttata 240
 ttactcatat catgcatatg ttgtattgca atgcttagtt ttttcatcat atacacgata 300
 ttgaatacca tctccttagt agacacatca tatatgcgat tgccctcttc tcacttcctt 360
 agtatataaa tcatatattt gaatcatatc atgtagcgac cagacctcaa acagtctgat 420
 ctctgtgctc cggtgtcat 439

<210> 9694
 <211> 300
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-002-Q1-E1-G11
 <400> 9694

accggtcagg tattccccggg ccgaccgaga agacaacaga aggggctata ttcagtgtaa 60
 tgtgcaatta atatcttcat atatgaatcc gtgcttgc at gtcacaaaaa aaaaaaaaaa 120
 aaaaaaaaaa aaaaaaaaaa aaaaaagaaa aaaaaaaaaa aaacaaaaa aaaaaaaaaa 180
 aaaaaaatta aaaaaaata aaaaaaaaaa aaaaaaaaag gggccgcca aaaggttcaa 240
 accttactta cccgtgcatg caacttcaaa cccctccaaa agggcccca aaatccaatt 300

<210> 9695
 <211> 436
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-002-Q1-E1-G5
 <400> 9695

gacgtggcat aggagctttc ttcgtcagaa ctgacaccat cttcgtcagc aagggatact 60
 acaatacgag gccagaaga gactacatcg tcttgctac ttgtcagcag attcgagtca 120
 gtgctatctg atgtacttct ttgccagatt tttgaagaat tgccagtgc ttgtgtaacg 180
 gggctgagct ttatcttggt atcctctatc ctattctgga aaaaaagtat aacaatcaga 240
 agaaaagaac aacatgaaca tctgataaca aaaagtactg agagaaatac agaattgtgtg 300

atctcaaagc accttaatgt aagtaaaacg atctgctgta actttcttct tcaacgagtc 360
aataacacgt aaaatgtgcc gggaggcctc actttcttct tcttctgaca tattagcctt 420
actatcttga ctcttg 436

<210> 9696
<211> 456
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-G6

<400> 9696

gtaccgagtc tagaattccc gggccgacat tgcattaaaa tgattgtgat gtagtatgat 60
gatatgctat cctcctctga atgtttgagt ggcttgactt ggcacatggt catgcatgta 120
gttgaatcaa aaccaacata gcctctatga tatttatggt catggtgttc atatcctact 180
tatgctagta cccaatgtta gttatgcata atgcatgttc atgaccattt tccctctcta 240
gctggccgct tctcagtcta attgctagcc ttggcttgta caaagtggga tttctgcttg 300
tgcacaaaaa ccctgaaacc caagttattc cagatgagtc caccatacct acctatatgc 360
ggattaccc cgccgtccta agtaaatttg catgtgccac ctctaaaaac ttcaaataaa 420
tacccttttt gtgcgcctag attgttcata gagcga 456

<210> 9697
<211> 445
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-002-Q1-E1-G8

<400> 9697

aattcccggg tcgacaacga ttaaaatagt gtcaggaaac attttcgtga tggctaagca 60
aggaacggcg cgatctcccg cgatttcattg aaccgtgcta attgagaggc agattttatt 120
cagagatagc ggggctgttt tgcttgccgt tcaaaatcgt ggcagttgat ctgtttgctc 180
tacgctgatg ggagtatttg gcaatgttaa aagtaactgt cgttctgtac tgtttaatta 240
gcagtacagc ggtacttcct cacagaaaaa aggacgtgca taccaccagc aatgttcaac 300

tcctttggac cgtctttagc aaaaccaatt actttcagat tttcacagtg taaaacgcac 360
aaacgcaaga ggggaggatt gatttcattc tgcaagactg caaccacact gnaagggtgca 420
caggatctgc tccttccaca ccagg 445

<210> 9698
<211> 379
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-002-Q1-E1-G9
<400> 9698

ggagaagaaa gttaccggct ccgacatgcc attaaaatcg catactcccg ttctgcacat 60
ccctgctctt cctgagggca ccgtcgtggt ctcaacatag caagaagagc ggcacggctg 120
gatcggcgaa agagatggca ttttcctctg accacactca cccttgacat tctcccattg 180
aaagatctgc ggtttacttc agctctggca ccattgaggg tgtgcgctaa ttttctttgg 240
caaaggctgt agcttccaga gtgctaatac gaaagcctga gacttgaaag tggtattgct 300
tcccttgatga taccctaata ataaatgcat ttggcgactt aagcacttat gcgccgctga 360
ggtgtgatgc tttgcttca 379

<210> 9699
<211> 419
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-002-Q1-E1-H10
<400> 9699

ggtcaggaat tcccggctcg acaacgatta aaatagtgtc aggaaacatt ttcgtgatgg 60
ctaagcaagg aacggcgaga tctcccgaga tttcatgaac cgtgctaatt gcgaggcaga 120
ttttattcag agatagcgcg gctgttttgc ctgcggttca aaatcgtggc agttgatctg 180
tttgctctac gctgatggga gtatttggca atgttaaaag taactgtcgt tctgtactgt 240
ttaattagca gtacagcggg acttcctcac agaaaaaagg acgtgcatac caccagcaat 300
gttcaactcc tttggaccgt ctttagcaaa accaattact ttcagatttt cacagtgtaa 360
aacgcacaaa cgcaagaggg gaggattgat ttcattctgc aagactgcaa ccacactga 419

<210> 9700
 <211> 422
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-002-Q1-E1-H12

 <400> 9700

```

ccccggccgc cagcttcctt gtggataagt tcttcctcca ttcgattaca tatttgacat   60
gtttcacgtg aagaagctgg attttacgtt tgtccgcctt tatgccttgc acatgaacta  120
catcattggg gttgagcaga tacgtcatat ctgtgtcgct gaccgtact acatgcacga  180
gagcttcttg ggagtctgcg cagagcaacg tgaatacgtg agggattaca tcgtcagttt  240
catgctcgcc aataaggaca aggaggcgat tctcgtgcct tatcatccca tgtaagtcac  300
ccacgtgct atccttcctt cgatttcaat aattcatttg cacggcggag gctaattaat  360
ttgaggtgta cttattttgc gcagcggcgg gtgcgcgcgc ctcacatcc tctanccccg  420
at                                                                    422
  
```

<210> 9701
 <211> 437
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-002-Q1-E1-H6

 <400> 9701

```

attccccggg cgacggtttc cttcaaggac ctggttcttt ctgtccacat caattgttgt   60
cattggagtg cttctgttct gcggttctgg ctgtgcatga tctccagtgg cttgatcttc  120
gtttctctca tgctctgctg gctgctgctt cttggtcgta gtgagatatg catgtaatct  180
ttcggttttt gtcaagtttt tgcctttgta atttagcatc attgtatcct aatcggttga  240
tggttcatt aatttgaagt cgggcctttc gtgccttttt ttctaaataa agggaggagc  300
catgcagaaa ccaccctcat attttagtta acaaccagca gtacatgtag aaaataatgt  360
tttattagga atattaaaat ggtttaaaca tatacccata tagtttaaac cctaactcca  420
at ttgtgacag attatat                                                                    437
  
```

<210> 9702
<211> 437
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-H7

<400> 9702

ggtcgaccga gaaaacgaaa gaagggatgat atgtgttttg cttggagcgt cgtgtattat 60
attagtcttt gcttttttagt ttaccacaat catacttgct gcacacacct tttgggagaa 120
gcctatttga ttagaatttg ctaaaatact ctatgtgctt cacttatatc ttttgagctt 180
gatagttttt gctctagtgc ttcacttata tcttttagag cacgggtggtg tcttaatttt 240
gaagaaattg ctagtctctt atgcttcact tatattattt tgagagtctt ttagaacaga 300
atgggtatttt ctatgatcat aaagttggtc ctagaatgac gagtatccaa gttgggtata 360
ataaaaaacta tcatagaaaa gaattggatg ctatgatcaa tatgatgctc gataattggt 420
ttgagatatg gaggtag 437

<210> 9703
<211> 182
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-A1

<400> 9703

ttcagttttc cgcatcagcg tctaatagct gcaatgcagt tgctaatacag gtactctttt 60
atggctcgagg tttgtgcaga atagatagat catacagtc agtatgagaa ataatgcatg 120
gcttaaatgc aatcggccgc cctacaggat caaaccatat gtacgcttgc atgcgacatc 180
at 182

<210> 9704
<211> 433
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-B8

<400> 9704

attcccggt cgaccccgac tacacagtgc cggcattcgc ggccatgatg aggaagaagg 60

tcacgatgcc cgcccacttg atgtacgacg ggcaggacga caacctgttt gagcacttca 120
gcgcggtggc tcaacggctg ggcgtctaca ccgccataga ctacgcggac atcctcgact 180
ttctggtgca gaggtggaac gtcgccaacc tctactgggt gtctggggaa gggaggcggg 240
ctcaggattt cctctgctca ctgggaccaa gggttcaggaa gctggaggag cgagctcagg 300
gcagggcgaa gcagttaccg gttgttcctt tcagctggat ccatggtcgg caagtgaac 360
tttgagtgaac attgcaaaac aattataaga cgatttggtt ttcttatttt caaaatatga 420
agcaactggt gac 433

<210> 9705
<211> 359
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-D7

<400> 9705

ttcccgggtc caccctttcc tcgaacgagt tgaggagggt ggcaggcaat cggcggggga 60
aggcgctct gccccgatc catctgctgc tgtcacaaca aaaaccacac cgagagccag 120
cgcaatgagc aagaagtcga gggctaggaa aaggacatga gctgtgcttc ttgccagtgc 180
atggatggaa taccagtagc tcccttggtc tcggtgcata ggacatgcgc gtagttctag 240
ggtgaatttg actaactaaa aatgtgatat atctcatcaa aagcagatca ttggatacat 300
atatgaatgt agtttctaaa tattttttgt taaatataat acatattagc tagttaaat 359

<210> 9706
<211> 385
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-E8

<400> 9706

ctggtaaatt ttacacccaa tgtgaagcag aacgattccg gaaaattacc tactttcagg 60
atcgcccgga tgtgatggca aaatatactt gccgtattga aggtgataaa actctgtatc 120
cgggtgtgtt gtctaacggc aatcttatcg aacacggtga tcttgagggt ggaaagcatt 180
acgcacgatg ggaggatcca ttcaagaaat catgctacct gtttgcgcca gttgccggtc 240

agttggactg cccgggacgac tcaattgtta catgttcttg cgcgaaagt acacttccaa 300
 tttgggctcc tgctcaagat ttgccaaata catcccatgc tatgtagtct cttaaagaac 360
 cctacaaatg ggatgaggag gtttt 385

<210> 9707
 <211> 337
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-A4

<400> 9707

ccgggtcgac gcgtacgagt acaactcgtt tacttgtcct ccaaggactc tcatgtattg 60
 cgctcttata taccocatgt agtcgcacct cagacgggtct gtcgtctcgt gcttgtaata 120
 ctctcctca tagtgattgc gccttcatgc gtccgtgggtt ttctcccgca agggtttcca 180
 cataaaaaatc tgtgtgcttc cgtgtcacgt ttatctcgtt attctaagat gggccgtaca 240
 atattctgtc gtccatgtgg gccgggtcct tgtggccaat tcgtagccga tctggagacc 300
 tcgtcgggca gcgcgagcgc ctgggcgtac cgtaata 337

<210> 9708
 <211> 427
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-A6

<400> 9708

taccgagtcc agaattcccg ggtcgacaga cgacagaaag gaatagggtta tccggacttg 60
 ccatgaagga tgctgtgagt cttttgtggc cgaaaaggcc cgagccgaag agttattttg 120
 gcttggtgaa gcagttccgt ggtgcggttc cgcataatcaa tgaaatgagg aggtcggcat 180
 gcatagaggg tgcgcagatg gctcttgccc gtgtcaagac atactgggcg gagatgaagg 240
 ccaccgatgt tggatcccaa gattcggacg gaagccgagt acgtgtcgag cactattttc 300
 aggaagttct gcagggcgct cgtttaatag agacgcagtg ctcgaaggat attatgttcg 360
 aataacatgt attattgtga aacaatgtat caatgggata taagagcttt ttatacttgt 420
 gcctctc 427

<210> 9709
 <211> 433
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-005-Q1-E1-B8

 <400> 9709

 gtaccggtcc agaattcccg ggtcgacata actaaaactc caggcgggta aacccaaaatc 60
 acatagaaca agggattacc tcgctttgat accaattgaa agtatgttat atcgactaga 120
 ggggggtgaa taggcgattt ttatgaaagt cttcaaaaca tgggagtttt gaagacaaac 180
 gatagaaatg aacctataac catgcagcgg aaggtagact accctagaca agccatgatc 240
 aagtattcaa tgaagtgaaa gcacaaagac taacatcagc taggcagtac ggatcaggat 300
 ggaagataat atgaaaccaa tctgaacaaa cagtcacaca gtgaagacaa atggacaatg 360
 caaataggca atgacttcac aaggaccaac tgtaaataaa gagatgggaa ggatagaacc 420
 agtgaacttg gtg 433

<210> 9710
 <211> 421
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-005-Q1-E1-C1

 <400> 9710

 gggtcgacac cgctaataac gtcaatgcac gcaaggatac cttccgtggg cgtgtttgtg 60
 agtgccttat tgtcaaaggt gtaaaattcg tgggggatgg atataccaac tgtgaagctt 120
 ccggtgttgg taggtgtgag atcaacaatg gaagatgctg gaaagaaact aagaatggga 180
 agacaatatc tgctgtctcg catgaagaat ctgaaggttg caaatgtcca caacgtttca 240
 agggcgatgg tgtaaaaagc tgtgaagata ttgatgaatg caaagcgaaa tctgcctgtc 300
 agtgcaatgg ctgcagttgt gagaatacat ggggaagcta tgaatgcagc tgtggtggta 360
 acaacatgtt atacatgaga cagcaagaca cctgcatcag caaacaagct gcctcctcag 420
 t 421

<210> 9711
 <211> 439
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-C4

<400> 9711

cgggctgact acagtctcca agggctcaac aatactatgg aacttctcga caaggtgaag 60
 ccagcgcagg aaatcagggg atgcaatcat cctacagatc cagttcggtt cctgcacctc 120
 agtatgcact gcagagggag aatgtatttc ctgggagacc tgatcagcca gaatgcatat 180
 actacataaa gactggagat tgtaaatttg gtgcagtttg caaattccat catccccggg 240
 tgcgctcaca gcctccccca gactgtatct tgagcccaat gggctcttcca ttacgcccag 300
 gggaagagct ctgcaagttc tactctcgct atggcatctg caagtttggc gtaaaactgca 360
 agttcgacca tccgatggcg gctccgatgg ggggtgtacgc gtaccggtac tctgcctccg 420
 cgtcgcccaa tgctcccat 439

<210> 9712
 <211> 443
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-C7

<400> 9712

taccggtcct agaattcccg ggtcgacaga cgacagaaag gatccttttg ctgaggcaaa 60
 tgctgaggat gctggtgcag gccccggcgc aaaagattat gtgcatgtgc gcatccagca 120
 gcgcaacggc aggaagagtc tgaccactgt ccagggcctg aagaaggagt tcagctacaa 180
 caagatcctc aaggatctca agaaggaatt ctgctgcaat ggcacagtag tccaggatcc 240
 ggagctaggg caggtcattc agcttcaggg tgatcagcgt aagaatgttg ctactttcct 300
 agtccaggct gggattgcga agaaggagct catcaagatc cacggcttct aagccgaagc 360
 cgctccgat aaatgctcga accgccagcc ggctcttctc tatattgaag gcataaggca 420
 tatatatatt gccgcccgt tgt 443

<210> 9713
 <211> 403

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-005-Q1-E1-D5

 <400> 9713

 gtaccgagtc tagaattccc gggtcgaccc cttctacatg cgtgccaaga tcttgggcag 60
 cgctggggac cggcaagtcg cgagttctta cctcgaaggc gtcattctgg caaaccaaga 120
 tgggggtaac tgtcctcgtg ccttactttc ccgagtaagt cctcccctca accggcccgt 180
 aacatatgaa ttcttacatt tcgatcgttt ttcttttaac attccgtgtt ttctgcagtg 240
 acacacgttg cacgctcatc ctctaagcc ccaaattatc catggccacg tatttcgacg 300
 cggaccgtca gtcgaacgta gactacacaa atgtcaagaa agttcttgat gatgttctcc 360
 ccggctacgc caaatctggg aggaccttca ccaggcctat tcg 403

<210> 9714
 <211> 449
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-005-Q1-E1-E8

 <400> 9714

 gtaccgagtc tagaattccc gggtcgacga ggatcatctag gtcctgcga gaagggtgac 60
 agggtcagca agaacgcaga tatcgccaag atggtcagaa ttgggtgcggc ttgatttggc 120
 tcactacagc ggctcctctc ctctgtcgtt cttgccggcc aagccaagct ggacatggat 180
 gtgtgggtgt gcatgctcac tgtgaagtac gttctaggcg acctctttca gttcgatgtg 240
 tgtgtcact gtgtgggtcg ccatctctct atcctgccaa gctacaccag cacttgttgt 300
 ttctctccc tgctgcaatc agtggtgtga gggacggaca agatggaggc atggagctgg 360
 cgactggata tgggaaggga gctgctactg cacttgggtc gcttgacagc tgccgttgtg 420
 cctgtacttg gacgggtgca gatagtga 449

<210> 9715
 <211> 456
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-005-Q1-E1-F6

<400> 9715

cagggtaccga gtctagaatt cccgggtcga cccctggcc ttgattcttt tgccaatatt 60
ttttatattt tccaaaagtt atctacgtgg attttttaggt cattctgaga actttttattt 120
tctgcacaat aaacaacacc atggcagttc tgctgaaaac aacgtcagtc cagggttagtt 180
tcattcaaat catgcaagtt agagtccaaa acaagggcaa aaagtgtttg gaaaagtcga 240
tacgttggag acgtatcaac tcccccaagc ttaaacccttt gcttgcctc aagcaattca 300
gttgataaac tgaaaatgat aaagaaaaac ttctacaaac tctatttgcct cttgttggtg 360
taaatatgta aagccagcat tcaagttttc agcaaagatt atgaaactaa ccacattcac 420
agtaacactt aggtctcaca tatcaatggc ataatc 456

<210> 9716

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-F7

<400> 9716

attccccgggt cgacagacga cagaagggag ggtttgagaa ctatgtagac atgaccgaga 60
cacgtctctg gtcaataacc aatagcggaa cctggatgct catattggct cccacatatt 120
ctacgaagat ctttatcggt gaaaccgcat aacaacatac gttgttcctt ttgtcatcgg 180
tatgttactt tccccgggatt cgatcgtcgg tatctcaata cctagttcaa tctcgttacc 240
ggcaagtctc ttactcgtt ccataatata tcatcccgca actaactcat tagttgcaat 300
gcttgcaagg cttatagtga tgtgcattac tgagtgggcc cagagatacc tctccgacaa 360
tcggagtgac aaatcctaata ctcgaaatgc gccaaaccaa caagtacctt tggagacact 420
tgtagaacac ctttataat 439

<210> 9717

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-G5

<400> 9717

taccgagtcc agaattcccg ggctgaccgc ctactgaaag gaagagtttc agcaacggtc 60
 cttcccggtcg gttatcactc ggcggagcag ataatgtgtc taaagtctca ccaaattggct 120
 tattaacaag gagatctcca tctttccatt caagatcctc tctttcttct agcagcagct 180
 tgatactaaa acacgctaaa ggaacttcaa agtcatttga tgggtggaact aggtcacaag 240
 acaggggaaa ggtccatggg aatggatcac atttacttaa caaatctaca gatgcagtta 300
 aagatcgtga agcgaatgat ggttggaaag ggactgtgga tgagggaact aatgaaagtc 360
 caaatagcaa tgcagatcag agaagtaatg aaaccacaaa tagcaactca attgaaatgg 420
 tctctggttt cctgtataat atgttgacg 449

<210> 9718
 <211> 434
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-005-Q1-E1-G6
 <400> 9718

attcccggtt cgacgcagat ttttatttct agctatttat cggctctgcat gtaactttct 60
 tacagattta gaaaaaact cagttaagtt tagactgtcc atgtcactca caaaaaaatt 120
 atactgtcga tgcatttttt gtggctcttc ttgtagaaag cagcctatag atagaagaca 180
 tccacgtggg tagtatttca gctctctcgg cattatgaaa tgggtgtaca aatatagcat 240
 caagttacac gacaaaaagt tcccatcgat atctcataag agctttccac caaaagaaag 300
 agaatctcgt atcaattaga gattttccat atccgaggaa ataaacatat agaggagagt 360
 gaccttttac tatgaggaag cagacagcag tatgttcatg ctattcggta ctaacattaa 420
 cggcgaggaa ttaa 434

<210> 9719
 <211> 458
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-005-Q1-E1-G7
 <400> 9719

taccgagtcc tagaattccc gggtcgacaa cctctacata tcacacatcc aggtgaacca 60

agcccaaaag cagaggcgcc gtacataccg tgctcacgga cgcacatc cttacatgtc 120
 caaccctgc cacattgagc tgatcttgtc agagaaggaa gagcctgtga agaaggaggc 180
 tgataacgtc gtcgcaccaa ggaaagctat ctaagctacc ggaatggatg cattcgtcca 240
 acagtcttag ttgtagttct tetcaagtac ctttggtggc agtgtttggt gcctccttga 300
 tgtttttggt accaacattg agtaaggatt tgtaagggtt gatgctatcc ttgtgattgc 360
 gagtgggtctt tatatgctaa aacagtttca gatatttgag catcaaaaaa aaggagaggg 420
 aggaagaaaa aaaagcggcc gccctagagg atcaaagc 458

<210> 9720
 <211> 388
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-005-Q1-E1-G8
 <400> 9720

attcccggt cgactgatcg agctagctgg cggcgaatca tgcacaagcg gcggttgga 60
 acaaccgaag tgtctgtctg gggtttctgg tgtgcggtcc cacttccagg tagatgatgc 120
 tgctgttgca acgaacagca gcttcccagg tccaccgtgt gagagttagc accagatggt 180
 ccattgattt ggtgtggctg agcagggttc ctgggttgag tgagctgagt gaagcagtag 240
 aataaagtgg tgaggatgta gtgtagtgt gccccggcct cacttgagtt ggtaggttaag 300
 taaggtgtac cagcagcagc agcagcagca tctagtgcac gtagtagaaa tgaaactggg 360
 tccccagctt tgtagatagt cctggtga 388

<210> 9721
 <211> 397
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-007-Q1-E1-A1
 <400> 9721

taccggtcta gaattcncgg gtcgacctcg ttgagtactt caacagccac ccgaagctct 60
 gcaagtttga ggtccacggc gccatgtttg cgctgctctg ccaaaagaac agcctgaaaa 120

atttggactc gaggttcctg atatcttcat tggaggaggt cctaatactact gtgcgctcac 180
ccttgaatgc tgagcagaag ctgatcacca ttgagtcctt tgtcaggat agtccaaggc 240
tgcggcggat ggtccttagg atctcgcaga tgaagaactg ccacgaggct gcagatgaat 300
tctttgaaga ggtttccaag tttgcgcata tgagtaatgg cagagtgcgg attgaataag 360
aggggtgccg ctgcatggct cagtgccttg gctcttg 397

<210> 9722
<211> 443
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-A11

<400> 9722

ggtaccggtc aggaattccc gggctcgaca atgcttttga cgtggctcgt aagaacgttg 60
aacttctttc cacagtgcta tcatcatctc catcttaaga ggcgctagag gatgacttga 120
ctaacaacct ggaccagcat tgccaatatt gtcattacac atgccagaga atcgctcgga 180
ctgcaggatga taacgaggct catttctttg aggcactgag catccattat gaactccaaa 240
gagttctgtc caagtacgaa tacctcacag aatccatcgt ctcatagcat gtgccatacc 300
catcaatgat tcgagtcaca gtggatcttg acgaatcgcc acgcgctgtt ggaatcgaca 360
cccccgtcag gaaatcatgt gggtcgggtg gccgctctat cggtcgggat gacttgcttc 420
aggatatcca ctacatgact ttc 443

<210> 9723
<211> 428
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-A5

<400> 9723

attcccgggc cgacatccgg tgaaaaaagg cggcttttaa gcagaggatg tgggagtgtt 60
gggcacattt ggttttcgac ttgggtgtct aaatattctc accatacttg gtcctctctc 120
gggctttgctg tcattggcgc aacgagtcac ctagttaaca ttcaatgaag aaaggatgt 180
gctactttga aggtttatgg tttatggttc atggcccaga tccaacatgt gtagctttcg 240

agagtgtgta ctgaaaccaa gtgtggtgtt ggtttctgtg aatagacatg acaagagaag 300
atcgcttgga gcagtctgca cgttgttgtc tcattcaccc atgtatgtat atacaacagt 360
tgttgctgga tataattgta tctatagtcc tcatactcgc cggtagcgtc gaactcattc 420
ctggaact 428

<210> 9724

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-A8

<400> 9724

ggtaccggtc aggaattccc gggccgacta ttttttctact tcggccagca ggtgttcagt 60
gccaacatct ggctgctgta aagagctaac tgtgaagcta acttcattct ttttttctta 120
cccgtgctat gttacttggt ctttctaaca tcggtggcca agtacagccg tagctttagg 180
agagtgcac caaggcacia aggtgcgaat tgtacaaata ggagtaggga aagggtagaa 240
gcaaagaata tggtcctggc atggtagtaa atatgagatg taaacgcact cgtagtgcag 300
ttaatcgat tttttgtagc tagggtgtca tagttttgat gatcggttcg gttgtatggc 360
tactcttata agccacgctg gaggtgctgc cgtttttttg ttccacgtgc atgataacaa 420
gatggaagac ccttcgg 437

<210> 9725

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-A9

<400> 9725

ggtcaggaat tcccgggtcg actgacgggg aaggcatgaa gaggggaaca cgtgtagggg 60
aaggtgcact aagggaagtt gcggcttata ttctcgacca tccagttggt gatcttgaat 120
cgggccatgg tggtgggttt tctggtgtgc ctcccacagc attagtccga agcttacata 180
ggggaaagag cttcaagttt ggatctctgc agatttttat ggagaacgat ggaagttgcg 240
aggatatggg tccgcgtgct tttccagtga aggaggtaca caaaatagca gtgttagata 300

ttaggttagc gaatgctgat cgatcatgagg ggaacattct agtgtccaag gaagaagggtg 360
ccacctgcaa gctgattcca attgatcatg gttactgcct gccagagaag tttgaggatt 420
gtacctttga gtggcttta 439

<210> 9726
<211> 445
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-007-Q1-E1-B10

<400> 9726

ggtaccgggtc aggaattccc gggtcgacca ccggagcact gcagctcttc ttctccaagt 60
ttgggtgccac cagcccacca tgctctgttc tccgggtgagg catctctaca tcgtctgac 120
taacttaatc aaacaacca tatatgttta aactcagaat tagtatagtt caataaggcg 180
acgccacgtg gctctccaat agcagttgtg gcaacaacat cagaaacact gccacgacag 240
acttttttgtt cagattttcaa ttcaattttc attttgcctat accttgagat ccacacgttc 300
aaatcaagtg atcctttttc ctacatattc acaatgacct ctaccgtgtt gtaaatcaat 360
atttcatttg tccanacctt ttanatttga ccaactctaa ttcaaatttg gatctccata 420
agatcatatc ctgcanaccg tatat 445

<210> 9727
<211> 442
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-B2

<400> 9727

tcccggtgctg actctggcaa gtaaaccacc actggccatc tgatctacaa gcttggaggt 60
atcgacaagc gtgtgatcga gaggttcgag aaggaagccg ctgagatgaa caagagggtcc 120
ttcaagtacg cctgggtgct tgacaagctg aaggccgagc gcgagagggg tatcaccatt 180
gatattgccc tgtggaagtt tgagaccacc aagtactact gcaccgtcat tgatgccct 240
ggtcaccgtg acttcatcaa gaacatgatc accggtacct cccaggctga ctgtgctgtg 300
ctcatcatcg actccaccac tgggtggtttt gaggtggta tctcgaagga cggccagacc 360

cgtgagcacg ccctccttgc tttcactctt ggagtgaagc agatgatctg ctgctgcaac 420
aagatggatg ccaccactcc ca 442

<210> 9728
<211> 437
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-007-Q1-E1-B4

<400> 9728

gggtcgacga ggccttccac gctaagtatg atgtcaagct gaacaatgcc attctcgccg 60
aggacaagca cttgcccattg tatgatgagt tgtccagcaa gggcaatggt gaatatatta 120
ctggaggagc cacgcagaac tctatcaggg ttgcccaatg gatgcttcaa actcctgggtg 180
caacaagtta catggggttg attggaaagg acaagtatgg tgaggagatg aagagtgccg 240
ctaaagctgc aggagtcact gctcactact atgaggatga ggctgctcct acaggcacat 300
gtgctgtctg tgttggttgg ggtgaaaggt cattgattgc aaacttatct gcagcgaact 360
gctacaaatc tgagcatcta aagaagccag agaactgggc actagttgag aaagcanaat 420
acatctacat tgetggc 437

<210> 9729
<211> 444
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-B6

<400> 9729

ggtaccggct caggaattcc cgggccgacc tcccaggcaa gaaaccaaac tggtttttgg 60
tcacgcttgt cattcttctt aagcgggtgt caatgactct ctcccatagc ttcattgtat 120
ggctcatcag cttaattcca cggttaattag tacaactctg aacatcccc ttgttcttga 180
agattggtac taatatactc cgtctccatt cttctggcat cttgtttgcc cgaaaaatga 240
gattgacaag cctgggttagc catactatcg ctatgtcccc gagaccttcc cacacctcaa 300
tggggataca atccgggccc atcgcttgc ctcccttcat ccttttttaa gctccttga 360

cctcagactc ctggattcga cgcacaaaac gcatgctggt ctcatcaaaa gagtcgtcca 420
gttcaatggg agagctttca ttct 444

<210> 9730
<211> 445
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-B7

<400> 9730

ggtaccgggc aggaattccc gggccgactg tctatgcaac ctctggataa tgtgttcccc 60
tgtcttggtt tatttggttg agcatcctca acgatatact tgggtggtat tgcaatcttc 120
tataactttc cacctgtaat catatgtatt atgtattgcg gatggaccag ctgattcaat 180
ggttgacaga aaggactcaa cctgcaaaca agaccattgt tcccaagggtg gtgaaataca 240
ataccctggg ccacatcttc cagaggatat ttggtgtcat atatattccc tactgccaat 300
gcgagattgt tttccgttac tacaatgcca aagtctgtaa cattgatagc tggtttcagg 360
ctgctgttac accggggatt gaagaactca ctatagaact atcttcaaag tcaggaagat 420
attacaactt tccgtgggtca ctttt 445

<210> 9731
<211> 429
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-007-Q1-E1-B8

<400> 9731

attcccgggc cgacgccggc atgaaggagc tttgggccac cggctggctg catgaccgca 60
tacgtgtcgt cgtctcaagc ttcttcgtca aggttctcca gctgccatgg cgctggggga 120
tgaagtactt ctgggacacc ttgctggacg ccgaccttga gagcgacgcg ttgggctggc 180
agtacatctc cgggtctctg cctgatggcc gtgagctcga ccgcattgac aaccgcagc 240
ttgaaggcta caagttcgac ccatacgggg agtacgtccg gcgatggctg ccggagctgg 300
cgaggctacc aacggaatgg atacaccacc cctgggatgc acccgagtct gtgctgcagg 360
ctgcaggaat tgagctaggt tccaattacc ctctcnccat tgttgagcta gatgaagcca 420

aatccagat

429

<210> 9732

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-B9

<400> 9732

taccggtcag gaattcccgg gtcgaccaat aagttaccaa taagatatcc ccaacattgg 60
ttgtatgaat gatacacttg gtgctttgat tgtattcttt tgtgaaagat tcagatttat 120
tataaaagtt tattaagagt acaaagcacc tcaaacacaa ttaaaaatat gtcgaggtct 180
ctaaacaacc aaacgaccat taccgcccgc ggaatggctc gccgacgcgt ctgtgtcgcc 240
actcgtctac cgaagccggc ttgacctgt cgatgacagc cggaaagtct tcgtgcacgt 300
gttcgtaagg acctgcgcc tggagccgca ggcattgccg ttgaaccac aaatagattt 360
gaatcagctg acaccaaata tcaccgttgt gcaagcaca tgagaaatcc taacctcacc 420
attccaagaa gacaacatga atccaca 447

<210> 9733

<211> 454

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-C1

<400> 9733

cgccgccagg tactggtcta gccttcccgg gtcgacatcg gcgtgcaaat caccaacttc 60
aacgactcac tagacagtgg tagcaaagtc atatcgctca ggctcccacg agcaatgtct 120
gcatagggca gttaacagga cacctgggtc gaagacggcc tggatgcgcc tccagttggt 180
tcgccgtaag ggccagtact catcgaggag gcgacccttg gcatgcatac aattgtgctt 240
cttgccgctc gacattctgg cattgatgct cactgtgctt gtgcacttgg ccttaaacac 300
acttgctcca tgtgtcactc cagacatgac agttagcatt atcttgcatg ctgacctcaa 360
agtacttgta ggtagagtcc tcattacccc actaggagtt gcgcacataa ataccactca 420
acctgagctc agctctctcc tcaacagtaa acct 454

<210> 9734
 <211> 422
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-007-Q1-E1-C10

 <400> 9734

ggtaccgggc aggaattccc gggctcgacgg taatgtgaca gttgaaggcg tgccctcgcg 60
 ggacgacatg tcgataccgt gtcacgacgg agaatgctat gaagagtgca tctcattcta 120
 caccggcctg gtgtgtggaa agtgcacgtt gaagccgctt ctcgtagctg tgctcgatga 180
 agtatgttgg tcggcagtct agctaactgt acagggcgat gacatgggtg gcatgtagtc 240
 aaatgggtgg gtagatgcag atgcagttgc agatcggctt gtgaggtcgt tcatcttgat 300
 gtatatggca gttggctatc gtagcccatc tggctcgtgcg taccggtcgt gtagtcacgc 360
 tcgatgcaca gagtccaagt catgttgcac gtatcacctc gtaggagatt gattcatgtg 420
 ga 422

<210> 9735
 <211> 410
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-007-Q1-E1-C5

 <400> 9735

gtaccgggtc agaattcccc ggccgactgg attcacaaca caggagtgc acatgccgctc 60
 cacgcgcgca gttggcacca acggatctct gcatcgccctg ggtccactgt ccggttccat 120
 gtcgcgcact cgtcgggatg tggataggac ctatcattgc gctccggcgt atttacatag 180
 caacatcgct catgtatcac ctgtcttgca atatgcacgc acatcgctcg gtcactgatc 240
 acgcaccgct tccttgccctg tcccctaata ctttgtactc actcgcttct gattccatgt 300
 catccgctgt gtactgacca cggattcacg tctaactgcg tctccggacc gccaggatg 360
 aaaatcccag tttccgtcat gattcattgt cacataagtt tgcacgcacc 410

<210> 9736
 <211> 446

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-007-Q1-E1-C6

 <400> 9736

 aggtaccggc caggaattcc cgggccgacc catttgatta accccacat tatactttct 60
 tccccatctt gctcgttctc cattggatag aacacatcgt tgaccctccc gctggtgcgc 120
 cgtcgcgcac aaccgtagcc tcaacattgg aatcacccca acgtgctcta gttgtagcct 180
 tcgccagttc tagcaccttc ccgaggctgc ttaccgccgg ggatgaagca tcctcaatca 240
 acagttctag aaacccatct taccggttcc aacaaattac tttaccacct ctagcacctc 300
 catcgcaaat tggtcactac caaggatgta gcatgccaaa ttcattttct atttttcaag 360
 tgcccaaat gagtttttgt gaataaccta gcaataatt gtcacaaaat tggaccacgt 420
 caattttata aaatactacg ccatat 446

<210> 9737
 <211> 441
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-007-Q1-E1-C8

 <400> 9737

 gtaccggcca ggaattcccg ggccgaccat gagggccaca cctcctcta caacggcacg 60
 gttggcgccc tctgcgccat gaacaggatg gtagaccct gtcacagctc aatctccgtc 120
 gttgttgggg acgagctgta tgccatggcc atcaaccgtg gcctgctgcc caaggtggac 180
 tattttaagg ctcttaccta tggccgctcg ttccggccact gccagccaga ggactggcac 240
 tggcgccctc tccagccgcc tccccttgaa tacgaccacg agaaggatca acgctacaac 300
 cccactgcgg cgctgtgac acaccctgt gctattggcg catacacggt tgttcgtgat 360
 tcacagatct ggatatctac aacgggcgct ggcacgtact cctttgacac aactagcagc 420
 gtgtggagaa agattggcga g 441

<210> 9738
 <211> 435
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-C9

<400> 9738

cgcgggcgagg taccggtcag gaattcccgg gtcgacgcat cgcgagtcg tggctggtgt 60
ggcaaccgac gaggttgctc aagcaaggcg gtagcccttt gtgccgttgt tgaggtagcc 120
gagagcgtgg gtggaggagc cgtggtcgag gtatccatgc gaagaatgtc atggtcgatg 180
tcgagttggg gtagccggtg tcgaggaagt cgccgtggag ccgcgggcgc aaagaggcgc 240
cgagtttagtc atgggcgag tagtggtgca ccggggagaa gacgttggtg acgacgcgtt 300
gcgccggggg tgccaagagc ggggacatat cgtagacgaa ggcatgcacc agtggtgcca 360
gcaccgggca tgcgtagatg gacgaagacg aagttgacga agcgccgcac cagacttgcc 420
aggccccggg acacg 435

<210> 9739

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-D10

<400> 9739

tacgcgtcga ggtaccggtc aggaattccc gggtcgacta tgatagttgc aattgcaagc 60
atttatttgg tccagagaaa acaacatggt cagtatcttc gaaagccaca aagcagttgg 120
ctatcactcg ttgtccgaag atcttgtgca ttcatttggt acgtgcttct attagttttg 180
atggtgaact cgtaaagcgt caggacacg tttcttttcc tttacttctc aatttatccc 240
catttgcagg aggacattc accactggac agggacctgg accttcagct atgaacgtgc 300
aaaaatatga cagccgtct ctcaaattct ataggcaact aaatgcacac atgcccatta 360
atatgtttcc tactggtggg aactcatcaa gtcaggcacc taaggatcaa gtaacaaatg 420
gtggtgtcca ctacttaat gagggaaatg ctgat 455

<210> 9740

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-D5

<400> 9740

gtaccggtcc agaattcccc ggtagaccga tcttcccaca acgtttgcct ccgccgccgc 60
gctccggccg tcatccacca ctagcttttg tccacaccgc cgcggcggcc accaacgacc 120
actttggcct aatcatggtc cgcctgcgct tcatgtccga tcaagctttt ccaataatgt 180
tcggcaccgc gacaaccacc atgaccaggt ttggcctgat ccttgtcggc gtacacctct 240
tatctttgag agggcccaac agggcgtttt aattcgttct acaactcact tctgttagtt 300
ggctctcaag atgcttattg attttcgtag cctaggggtg tataaattgg tcaaactgtg 360
tttaaagagg cgaggtttta ctatttaatt ttctaacgat cctatactat aacagaagtg 420
gatggtag 428

<210> 9741

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-D7

<400> 9741

gtaccggtct agaattcccc ggccgacacg acagaagggg cagcatgtgc tctcttctca 60
aaaacatgga ttgaagtctc tggttcatca gccaaaggatg ttgcgaagca gctgaaggaa 120
caacaaatgg tgatgccagg ccatcgtgag tcaaacctgc agaaggaact gaacagatac 180
atccctactg ccgctgcatt tgggtggagtg tgcacggcg cattgactgt tctcgtgat 240
ttcatgggcy caattgggtc aggaaccggt attctgttgg ctgttaccat catataccag 300
tactttgaga ccttcgagaa ggagagggcg acagagcttg gtttcttcgg gttttgattg 360
atacatgata gctttgggag catgttatgg ctacagcaca gcttgagtct ttctagacag 420
tcgcagcac 429

<210> 9742

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-E11

<400> 9742

aggtaccggt caggaattcc cgggtcgaca agtaggcctc aacctgctgc tcaacttcacg 60
 ggcatgcac aaagcctcgg tattcagctc gcacagcttg ggaaggatgc ttctgcagca 120
 ggagctgcac gcagaggtaa tactcagcgg aagacagttg aggtcgagtc tgttgcagct 180
 gcagggaagc aacaagctag agaagtagtg aagaaatctt tccgtgccga gttcctcgag 240
 aagctgcaca aagatttgga tgacgatatc gatgtgagag ccttggaataa tggatttata 300
 tctgtcactc ctctgaatgt gcacggccgt gtcgagtctg aactcgaagc tccagcgtca 360
 gactggctgt cagcagctgt gtctgtatcc gaagaaaagg aagctccagc gacctaacaa 420
 acacgcagaa atgtacactg t 441

<210> 9743
 <211> 378
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-007-Q1-E1-E2
 <400> 9743

gggtcgactg ccaccagaac gatatccatc atctcatcga aagacgggac acctttgcct 60
 ctatcaagtg gtatcagatt tccaggttgc tcggtgagat ttacagttt ttcatagttt 120
 agatcgagtc tgttcttcat acctatagtc cagcaaaaag ccactagtcc tagtccgagt 180
 ccagtaattg ttgcattgtt ctcgatttcc agatcacgcg atactccgag tcgtgacaga 240
 gaaggactcc ccaacttccg agccatccgc agaagaaaaa tagttccaat ttcaaaaaaa 300
 aaactaagtc tggaaaattc tggctaggca gtttttagac catttgtaga ctttttcgaa 360
 aaaaaattgt tgcggagc 378

<210> 9744
 <211> 443
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-007-Q1-E1-E5
 <400> 9744

gtaccggtct agaattcccg ggccgactcc cctacggatt ctggaatatt ggggtattta 60
 tagaagaaag agatggtccc ggggggcacc cgaggtggcc acaaaccacc aggggtgcgc 120

tgggectcct agcgcgctct ggtgggttgt gctcccctcg gggaaccccc caagcgcagc 180
 cagggcccggt cgtgttcctt ctggaacata aaaattctcc gtaaagtttc atggcatttg 240
 gactccgttt gatattgatt ttctgcgatg taaaaacat ggaaaaacaa aaactggcac 300
 ttggcactat gtcaataggt tagtaccaaa aatggtataa aatgattata aaacatccaa 360
 gattgataat ataacagcat ggaacaataa aaaattgtag atacgttgga gacgtaccaa 420
 catccccaag cttaatcct act 443

<210> 9745
 <211> 442
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-007-Q1-E1-E7
 <400> 9745

gtaccggtea ggaattcccg ggccgacagc aacgacaaag accgtattgc tgaggcaaga 60
 gatgagctcc acaggatgct gaatgaggat gagttgcgca atgctgtatt gcttggtttt 120
 gctaacaagc aagatcttcc caatgccatg aatgctgctg aaataacaga taagcttggt 180
 ctacactctc tgcgtcagcg aactgggtat attcatagtg cttgcgccac aagtggggag 240
 ggtctgtatg aagggttgga ctggctctcc aacaatatag ccagcaagtc ctgatagctt 300
 ccaatggatt ggcagagccg cagaagcgac tggcggctgg acaaatgact ggaatatgta 360
 ggcatgttaa agtgctgcca gagtggtgac atgtctttgt aagctctatc tttgagcagt 420
 tatcacactg ttactatggt gt 442

<210> 9746
 <211> 438
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-007-Q1-E1-E9
 <400> 9746

ggtaccggtc aggaattccc ggtcgacgt gattctcaag tgcacgctga ccaaccctat 60
 tctgcggccc aagatgtcag aagttctcca ggcccttgaa tctaattgta cgctggcgga 120
 gaatggtgtg gacttgaata gagaagcgct gctgccttat ggaggctctt gcagtttctc 180

tgtgagacat ggggatcctc acgactcatc gtccttcata atagagccaa ttgagctatc 240
 cggtcctaga tgatggcaag tgctggtttc acgagagaaa acagaggaaa gcgatgatag 300
 ttgtacaaaa catgtataga ctggatgtag tccaacttgg gaggagcttc ctcaggttgc 360
 gtctcacaaa ccattttcgg ctagaaacta ggaagatcat atgtttccac tgcaaactcg 420
 tatgccacca caaactgc 438

<210> 9747
 <211> 87
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-F11

<400> 9747
 caacacccag tagtgagtcg tattaaacaa gtcagccctg gccatgtgac acacgtatgc 60
 cataatggaa gcctcctcgc acccact 87

<210> 9748
 <211> 436
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-F2

<400> 9748
 cgctgccag tactggtcaa ccattcccgg gtcgacacgt tgtaccacgc agctgcaggt 60
 aatcacaggg gcatataatt tgtcaatccg cgccgtgggc aagatctgcg tcctccatca 120
 ttgccattca tggacttggg acagagcttg ccaaattggc accaacggca atcgtgacct 180
 tcaggatatga gcctgacata cgtatcaacc aagagttcat ggttacatat acacatctag 240
 ctaactacca ccgctgggag accagcccta ctaccatatt tgacattgct cgcgtcactc 300
 aacatgtagc gattgtggtc ccatctgcat acacgtactg acgataagcg tgctcagaca 360
 tgacatatgt caaggctgaa gtcagcaatg gcatacatct atgccaatga ggacagcttt 420
 gatttcactg tcaaga 436

<210> 9749
 <211> 442

<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-F5

<400> 9749

gtaccgggtca ggaattcccg ggccgactat aataaaaaatg aaagaatgga tggatcatga 60
atggatatca ataatgtgat accataatac gtgtctgcaa cttcactgga gagtgtcgtg 120
tggcagcaca acataaattc atgctaaacc atctcttttc ggattgttgg ttgtttcatt 180
gttattccct acggtgtagt tgttcgcctg atgtatcagt tcaagatgtt tatgtgttct 240
cttaaattga ataaagtgtt gtctcaattg tgtattatat gtcatacttt atttattttg 300
taccatcatc gtgtgacgcc tacacctggt aaaggaaaag aaaatcgtgt ggcaccaaatt 360
taaattcagg aaaaatactc acgcgtagac atgaaaaata tacgcatgct tgtagaatta 420
tacggtagaa tgaaatgtac at 442

<210> 9750
<211> 307
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-F7

<400> 9750

gtaccgggtca cgaattcccg ggctgacact gttcgttaaag agaggacgat tcctgaggga 60
cagactgggtg gttttgatca gtcggaagag cactttcccg agatcatgca acgtgtctct 120
atcttgctg gcagcgtctt attatggtgc aatgctggga tcaactgcgat cttcatattg 180
tggttgctca tagctatttt cgagagttga gtctgtcgta caatagatat ctccagacat 240
gcttgatgat gtgatttgat gaacctgcat tgccaagaga gcacagctgt ataacctgaa 300
ggaaagt 307

<210> 9751
<211> 379
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-F8

<400> 9751

gtaccggcca ggaattcccg ggccgacgac gacagaaagg atggctggtg gaggtcttat 60
 ggttaaaatg tttttgcgca aagccaattt ttccctactg caaaggaata tattttattt 120
 aactatcatg gtggctggta aacattgaga atggttgaca acattctcaa tcccaattaa 180
 gcatcatctt taaaacccaa caaaattaat taaagtaaca tgatgagatt cacatgaaaa 240
 tccaagtact agatactcaa aacgtccata actggggaca cggctaataca tgattagttt 300
 atacactctg cagaggtttg tgcacttttc cccacaagac tcgatctcct ccgttggttt 360
 tctcgtacta catggtggt 379

<210> 9752
 <211> 439
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-007-Q1-E1-G3
 <400> 9752

tcccgggtcg acggtgtggc aaacgccact ttgacggtcg agtcggcgcg ggataacctc 60
 gagcgtctca tcggcaagga gaagaatcag gacgacgaga aggtcttcat ccagtcattc 120
 ctgcggtttt gcttttgtaa gaccacatt cttaacaaag tactaaactt tttttctttc 180
 tttttagttg ttggatctgc ttccactttt gaatgttggtg tttagatctc attgtttgcc 240
 accctagttc aatagaacca tagatttttg gctagcgatg gctctgtcat acgttattcc 300
 ttttaagtag tttttttata aggcataatt tttcaatata gtggcatata gttgggtaca 360
 tatggcttca caatacgtct ttctcataag aaaattttat cataggctaa catagtgcaa 420
 tagaacagtt tgctatttt 439

<210> 9753
 <211> 424
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-007-Q1-E1-G4
 <400> 9753

cgggtcgacc gtaatccgga tctggcacat gtctgaatg atccaagaat tctccgcaa 60
 actgttgaag cagctaggaa tcctgaactt atgagagaga tgatgcggaa cacagataga 120

gccatgagca acattgaatc ttctccagaa gggtttaata tgctgcgccg catgtatgaa 180
 actgttcaag agccatttat gaatgcaacc acaatggctg gggagggcga cacaaatgca 240
 aaccatttg cagctcttct aggaaaccag gggcttaacc aagccagaga tccaactgga 300
 gatgcaccaa ctactgctcc tgctccaaat actaatccac tcccaaattcc ctggagtgc 360
 aatgctgggg ctgcacaagg agcagcaagg ccttctgctg ctgcaaggag tgccacaagc 420
 ggtg 424

<210> 9754
 <211> 445
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-G5

<400> 9754

ggtaccggtc aggaattccc gggtcgacac gacagaaggg gagattgaga gaggaggaga 60
 gggtttttgg agaggagact cttgccattc ctgcgcggcc gcatctttgc tcacctcgcc 120
 ggccgcttca atcaatcagt gttgattaat cggcgtcgga tccgtcgatc taagagatcc 180
 atgccatcaa gagatggggc ctcgtatgga gtgcagttca gacgagtcgt cagagctagg 240
 tgacactgat atcgatgact atgctgagaa ggcgtacaca gacctcaagt ctggcaagct 300
 tgtggcgagg ttccggcgcc acaggtttag atgcccgttc tgccccggga agaagaagca 360
 ggactaccgc tacaatgagc tgcttcagca cgcaattggc gtggggcgcat ccaaccgtgc 420
 tgccaaagtg aaggcaaacc atcag 445

<210> 9755
 <211> 448
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-G6

<400> 9755

ggtaccggtc aggaattccc gggtcgacca ggctgagaaa atgggacttg actacatgga 60
 tgttgaaagt ctcaagaaga tgaacaagaa caagaagctt gttaagaagc tagccaagaa 120
 gtaccatgct ttcttggcat cagaggccat aatcaagcag atccctcgtc tccttggccc 180

tgggtcttaac aaggcaggca agtttccac tctggtagt caccaggaat ctcttgaagc 240
 caaggtcaac gagacaaaag ctacagtcaa gttccagcta aagaaggttc tttgcatggg 300
 tgttgctgta ggcaacttgt cgatggacga gaagcagatc caacaaaaca tccaaatgag 360
 cgtcaacttc cttgtgtccc tcctgaagaa gaattggcag aatgtgaggt gcctgtacgt 420
 gaagagcacc atggggaagc gtgtacgt 448

<210> 9756
 <211> 446
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-G7

<400> 9756

ggtaccggtc aggaattccc gggccgacga gatgtttgcg cgatgatggc ctccggaggg 60
 ccatgacacg gtgcaggcag ggagcatatc aggatactgc tgctcgctg ctccagcgca 120
 ggcggagcta gcagcgagga ggagaaggga gttggggcgc tccggaggag aacgaaggga 180
 ggcggcgcac gataggaacg agagggagat cgagagaagg aggagggttc gagcgcacgg 240
 gatgggatcg ggctcctccc tgacggcgct agcagtgaac gggagatgaa gaggggatcg 300
 ggatacggcg gctagagttg agaaggcggg ggtcggctgc gcctaaagta acaaattggg 360
 cagaagaaga ggttgggagg cccaggtggc cagaggcctg gttgggctct ctctccgtta 420
 ttccttttag aaaaaaatt gtttat 446

<210> 9757
 <211> 448
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-007-Q1-E1-G8

<400> 9757

ggtaccggtc aggaattccc gggtcgacta taactcctcc atcctttctg tttttccagc 60
 tgaagcatgc gaagtaatca gtggatacgc ttgttctgct gatatttacc ctgaagtcaa 120
 gctcgataca aatcccgtct cacgtcccgt ggcttcagag cccgttgaca gagaatacga 180

agagtataac agccccaaaa cggttttccg tgaagaggcc tgcgatgac ttggaggaga 240
attctgtgaa cctgactttc aaaaagatgc caactagaag aaacaagatt ttatgtcatg 300
tgaatatgtg tttgtatttc tacaagtctt tgtaaccact ccttaattta tgatatctag 360
cttcactact taatcaagat tgatgttata aaaaanaaan anaaaanaaa aaaaaaaaaa 420
gcgccgctc tagaggatcc aagcttac 448

<210> 9758
<211> 440
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-007-Q1-E1-H3
<400> 9758

tcccggtcg actgacaacc atagataaga gcaaaaatac tgaagacagc atagatttta 60
gcatacagtg cgattagcac ttgacctctt tcagcccatg tgcaaagtac aggaaagttg 120
gatcagcagc tccctccttg tagtaggcga acaccacgcc gccatcatca tgcagtctct 180
cgccaacaaa gaactgaagg tccttgagct tgctaagaag atactttgtg gcggactcaa 240
cattcttctt gaaagcatct aggtcatccc cttcaagctt ggcagagagg ttcttgatgt 300
agcgcttcat gtgagagata aactgcttct tgtcaaaagc aggttgctcc tgaagacgga 360
aggtgtcaac aatgtcaacc accttcacgg cctggtcac aacaccctca tcatcaccac 420
caccctcaag cagaggattg 440

<210> 9759
<211> 445
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-007-Q1-E1-H6
<400> 9759

ggtaccggtc aggaattccc gggtcgacgt atcacaggcg ccttctgtcg aatgagtgga 60
tgacatctgt cccaacgggg agccgacacg tgtttctctc agccaatgat gatattacac 120
gtgggaaatc ccattggcc ggggctgtta acgggttatc ggatgcataa cccgaccgga 180
tagcttaacg gtgttccgtt acgggtgatg ccacgtgtcg gtcacccttg acgaaagcag 240

tctctgtggca cacgatttat cgtcatggaa gtgtacacat ccgtgatgat aatttttgga 300
 atgtcatcga acacttctac gacagcacag gtatgactat cttgattctg tcataaattt 360
 gtcatggatg tacatgcatg acaagaaatg cgacctactg tgacaaacac gtatcatcac 420
 ggaagtgtat attttttgta gtgag 445

<210> 9760
 <211> 242
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-008-Q1-E1-A12
 <400> 9760

taccggtcag gaattcccgg gtagaccac gcgtccggct gtctcgtgta cggacctggt 60
 ggtacttcca tcagcacacg aacaatccca gtcagtgaga cggcactcat gggaaggata 120
 cccatgcaga gactgagctg gactgatggt gttactgact gcctgttcgc cagttgacgc 180
 cagatccgtg cccacattgg ccgatcagat tcaagtgcag gacaagttcg atctgtctac 240
 ga 242

<210> 9761
 <211> 445
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-008-Q1-E1-A6
 <400> 9761

ccctgcatat accgggtccga acttcccggg tcgacggaga tctccgttga attggccaat 60
 tggccatgat gtgctcctcg actagtcatg cgtgccttgt tgctgcaaaa cggcatgcaa 120
 agcacatggt cctctattgt ggataatgta tccggtgctc tcagttag gatgctatcc 180
 atgttcccaa cctaaaaatc atcataactt ttgtaaagta gatcagccta aatcatcata 240
 acttgctca agatcccaga tgcattgctt gtcttcagca accagaaaca gcaactcacc 300
 tctgcaaaga ctgtcccttc acgggtcgcg tttggaacca ggtgaactct tggactaacg 360
 aaggcgttcc aatctcgggc ttctcccgg agccaggaaa tgtgtctgac tgggtgggaca 420
 agactctgaa ttcccagtc aagca 445

<210> 9762
 <211> 470
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-008-Q1-E1-A7

 <400> 9762

acgcctgcat agtacggtcc gaacttnccg ggtcgacaaa gctaataacg tcaactgcatg 60
 caaggatacc ttccgtgggc gtgtttgtga gtgccctatt gtcaaagggtg taaaattcgt 120
 gggggatgga tataccaact gtgaagcttc cgggtgttggg aggtgtgaga tcaacaatgg 180
 aggatgctgg aaagaaacta agaatgggaa gacaatatct gcctgctcgc atgaagaatc 240
 tgaaggttgc aaatgtccac aaggtttcaa gggcgatggt gtaaaaagct gtgaagatat 300
 tgatgaatgc aaagcgaaat ctgcctgtca gtgcaatggc tgcagttgcg agaatacatg 360
 gggaagctat gaatgcagct gtggtggtaa caacatgtta tacatgagag agcaagacac 420
 gtgcatcagc aaacaagctg ctcctcagt cggctggagc ttcatgtggg 470

<210> 9763
 <211> 448
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-008-Q1-E1-B2

 <400> 9763

tggtagcct gccggtaccg gtccgagatt cccgggtcca ctacctgatc cgcacaaagt 60
 gggtagcctg cctcgagttc agcaagggtg gcttcgtctt ccgtgagcac aacagctccc 120
 ccgggtacta cgacggccga tactggacaa tgtggaagct gcctatgttc gggtagcactg 180
 acgccacaca ggtgctgaac gaggtggagg aggtcaagaa ggagtaccct gacgcctatg 240
 tccgtgtcat cggttcgac aacctgcgcc aggtgcagtg cgtcagcttc atcgccctta 300
 ggccaccggg ttgcgaggag tccggcaagg cctaaactac gagttgaaac aatggcctat 360
 ctcgtatgaa ggtcttttgt gaacttcaact tttgtccaaa actctgctgt acgactctgc 420
 tttctgaccg gagcatacct tttgttct 448

<210> 9764
<211> 462
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-B5

<400> 9764

cggtcgaaa ttcccgggtc gacaaaccag gacgcggacc tcagacaaga attctttcgc 60
atccagtcgg agtttgcgga catcatccat caagatgtcc ttcatacctt ggggcagttc 120
tacctcagat atcaaccgtc caacaatgag atagatggaa cgctacaaat gcaggggtgac 180
aacgactgtg atttcatgac catcacgaca gacggcggct tcatccacgc tcctgtccga 240
tgagtcgagt cgaaagtagt gatgtgtagt tctgaaacat tgattggctc atgttgtaat 300
taaagtttaa tgaattcgta tgtctctttg gtttggacag tcattcaact tagatgtaat 360
tgatgctatt tattagtagg agcatgaatc gtgctattaa tgtctttctt ttctcttctg 420
atccttttgt tgcatactta catattcctt atgtaatttc tg 462

<210> 9765
<211> 444
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-B7

<400> 9765

ggtccgacac ttcccgggtc gacccaacca acagagccat gctcccctcc gatggtgatc 60
cccttggtgc gagaatggaa ctcaaaatcc cggcggcgaa tcaaggcgca tcagcttggt 120
gctccatgtc tttgtcttgg agctgtacag gtggagatga aagtgcccggt cgggtgtactc 180
ccgctcaacg aaggccctgc ggagcacggc gatgaagaac atgtcctagt cgcggcggcg 240
cagcaacgcg acctcgtggc cgaagaaggt gaagtcgggg ggcgagtgga cgagcttgac 300
cgacggcgga gtgttcttgg tgccggcctg gtagacgaag tagcggatgt tcttggcgta 360
catgtactgg cgctcggggc agatggtgat gcagagcaag gcgaggccgt cctccgtgta 420
gcagaccttg gggatgctgc cgta 444

<210> 9766
<211> 464

<212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-008-Q1-E1-B8
 <400> 9766
 cgccctgcata gtacgggtccg aacttcccgg gtcgactcac acagaaaacg attgctatct 60
 catcgaaaca tcgggacacc tttgccccta tcaagtata tcagatttcc aggttgctca 120
 gtgagatttt acagtttttc gtagtttaga tcgagtttgt tcttcatacc tatagtccac 180
 gaaaaaggca aaaaaaatta gggtaggttc atcttatccg aaccaatctg agcctttgca 240
 taatcttttt ggcctttgct ttgttgaatt tgccagtga tcacgtgtc aagttgctgg 300
 tcctagagtc tagcccttta gagttttgag ttctgtcac aagttgtcac gtcgccgccg 360
 caccatcgtc atcacagctg ccatatacca ccacgtcat cgcgctccc atataccaca 420
 tatccaccgc ttatccgcca ccgcttcgaa tccgtatcca tata 464

<210> 9767
 <211> 332
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-008-Q1-E1-B9
 <400> 9767
 attcccgggc cgaccacgc gtcagggtgc atccgttcac agccattcc ccagctcgaa 60
 aaggtttctc agtgctcgtg tagttgcgtt gggttcaggc tcctattact agctggtaag 120
 gcagtcttct cccgtgaacc tcgattggat tttcacgtta tgatcttgca cagtattgca 180
 gataatatgt agtctatcca aacaatgctg agatgatcta cgggattaac tcataagaca 240
 tgtgtgggat atagtattgt cgtcatatag gatttggaca cacatatgat acgatattac 300
 aacttagtac gtccattgac acaccttagt cc 332

<210> 9768
 <211> 300
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-008-Q1-E1-C2
 <400> 9768

gcgttgatc tcgtactcc ctatagttag tcgtattaag gcatggacga cggggatgtc 60
gagattccct ccgcttaaag acctgatgtc gaggtgatga tcatctctga tgtgatggaa 120
gtcatagcat gttgggtatg taggggtccag gcatgtgat ccctcggcgt tttgggaggt 180
tttagcgttg tgcattgtg acgtcattgg tactagtga taggtggtct ttgcaatgta 240
gacgggtgcac ttgggtatag ttaatccaaa ccagtcagt gtttgaatat cgtctgtgat 300

<210> 9769
<211> 89
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-008-Q1-E1-C8
<400> 9769

gttgtgtctc acaattccct atattgagtc gtattacgct tatttcgac gaatccttcc 60
ctgatctgca ggatttcatt ctcttgtt 89

<210> 9770
<211> 440
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-008-Q1-E1-D10
<400> 9770

gggtcaacct catgtgtcag gatcttagt ggacgtgtaa tttggacttt cgtctgagt 60
ttcttgttg tgatttgcgt gttctcttg atttccctc caagttgtga aagaccaggc 120
cacctagggt tctacccta catcactgct tgcataccat cattccaaat aagcacaggg 180
gtatttctgt ctttgatgaa atacaactaa ccatacagga actttttact gaaattgata 240
tggacatcat cataatggga ggttggagta cacagacaca aaggattgat atatcttcag 300
aatgcaact cacaatatca gtagttgcat gtattgcctc aaagaaggtc tgaacttatc 360
ttgtcttaga atgaaacaac ccgaggcaac catattcaca cttggagtag taacagcttc 420
aattagcctt gattatatac 440

<210> 9771
<211> 468

<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-D5

<400> 9771

cgcttggtta gtacgggtccg aacttcccgg gtcaccact tctacatgcg tgccaagatc 60
ttgggcagcg ctggggaccg gcaagtcgcg agttcttacc tcgaaggcgt cattctggca 120
aaccaagata aggataactt cctcgtgcct tactttcccg agtaagtcac cccctcaacc 180
gccccgtaac atatgaattc ttagatttcg atcgtttttc ttttaacatt ccgtgttttc 240
tgcagtgaca cacattgcac gtcacacctc ctaagcccca aatattccat ggccacgtat 300
ttcgacccgg accgtcagtc gaacgtagac tacacaaatg tcaagaaggc tcttgatgat 360
gttctccccg gctacgtcaa atctggaggc accttcacca ggcctattcg taagtacggc 420
aagcacgtgt tctcccacaa tacgacattc tactgctgca agcagccg 468

<210> 9772
<211> 391
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E12

<400> 9772

attcatcgtc cacatgtggc atcagagtgg atatccccga gttccttcgg tggataggac 60
cttctcgctt ctcggaatt tgactcttct ccaaaggctc ctttcttaca taatgcctgt 120
tgagactcgc cccgcgtaca ttatatgcc tcttgtaaga tatcagaatt gttcagtcta 180
gctgttttcc gatgaggttt tacttttttg tactttgtta gatctatctg tgctttatcc 240
tggaatgcta ctggcaataa tgtgtagctg tgaacatata aatgttgat aaaatgttct 300
gccttgagaa aaccttgcag cagggatttt tgaagcggcc gctctagtgg atataaactt 360
atctacgcgt ccatgcgacg tcaagcttct t 391

<210> 9773
<211> 110
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E5

<400> 9773

caaaattccc tataatgagt cgtattagca tttaatgcat atcctcactc atctttgttc 60
ggaacttggg accaatccag ttattatcat gatctaaatc ttttgatacg 110

<210> 9774

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E6

<400> 9774

cgggtccgaa cattccccggg tcgactacat gacacttcac cattatattgg gcctagagga 60
aggcattggg aagtaataag tagatgatgg gttgctagag tgacagaagc ttaaacccta 120
gtttatgagt tgcttcgtaa ggggctgatt tggatccaca tgtttcatgc tatgggttagg 180
tttaccataa tacttttgtt gtagttgcgg atgcttgcaa tagagggttaa ccataagtgg 240
gatgcttgtc caattaagga catcacccaa gcaccgggtcc acccacatac caaattatca 300
aagtaccgaa tgcaatcat atgaatgtga tgaaaactag cttgacgata ttcccatgtg 360
tcctcgggag cgcttttctc tatataagag tttgtccagg cttgtccttt tctacaaaaa 420
ggattggggc accttgctgc actttattta ctttt 455

<210> 9775

<211> 394

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-F12

<400> 9775

cgggtcagga attcacggga acagtttacc ctccaaacac cgggagcggg gtgacgactg 60
ggttacaagt gaacacatca tgactttcag cagttggctg gcaacacgtc tcacaggtga 120
gaacactgtt tgtgctgagc tatactcgtt gtccagggga ccatcttcga ctgtattgac 180
ttacaacgga tatgagataa atgggaatgc attttacacg atcgcccaag atcaatagag 240
catcaaccac aacatcgggtg ttcgctttga tgcagcaatc aagatgggaa aggacacata 300
ttatggttac atagtggaca tatcggaact tgactacgga catgatttta aggtcccttt 360

gattaaatgc aaatacgtca atctgtcacg aagc

394

<210> 9776

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-F2

<400> 9776

gggaccacta catgacactt caccattggt tgggccccaga ggaattcatt ggtaagtaat 60
aagtagatga tgggttgcta aagtgcaga agcttaaacc ctagtttatg tgttgcttcg 120
taaggggctg atttgatcc atatgtttca tggtatggtt aggtttacct taatacttct 180
gttgtagttg tggatgcttg caataggggc taatcataag tgggatgctt gtccaagtaa 240
ggacagtacc aaagcaccag tccaccaca tatcaaatta tcaaagtata acaccacgat 300
gcggctatat ctctacgtg ccggagcaca acttagaggc ataaccgcat agtaggcatg 360
tcgcaagagg ggtaatcttt acacatccca tgtactgaac acaaagaga taaagagttg 420
gcttacaatc ggcacttcac acaataaata aa 452

<210> 9777

<211> 465

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-G6

<400> 9777

cgcctgccta taccgggtccg acattcccgg gtccacgctc catttggacc tgaggctcag 60
gggtggaact atgatcaagg tgaagacact tactgggaag gaaatcgaga ttgatattga 120
gccactgac acaattgata gaatcaagga acgtgttgag gagaaagagg gtattccacc 180
tggtcaacag aggtcatct atgctgggaa gcaactcgct gatgacaaaa ctgctaagga 240
ctacaacatt gaaggtggtt cagtgtcca tcttggtgctt gctctgaggg gcggtcagta 300
gatgcaacct cgacgtggac cgtataggcc atttctacca gaacttggtg cagacctgga 360
tctgtgaatt tgccggttga ttgaagtgcc atgtaattga cgcatttggt aagtcagctg 420
tcacctgtac ttggatggaa ttggttgaac taaatgctta tccgc 465

<210> 9778
 <211> 478
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-008-Q1-E1-H8

 <400> 9778

acgcctgcct ataccggtcc gaccttcccg ggtccacgag ttgatcacga aggctgcgaa 60
 gaagggtcag atgccctcgc agatcgggtgt tctgctccgt gaccagcacg gtatccccct 120
 tgtgaagagc gttaccggaa gcaagatcct ccgcatactc aaggctcatg gcctggcgcc 180
 ggaaatccca gaggatctgt actttttgat taagaaggct gtggccatta ggaagcatct 240
 tgagaggaac aggaaggaca aggactccaa attcaggctc attcttggtg agagcaggat 300
 ccaccgtctt gcccgttact acaagcgcac caagaagctc ccgccacct ggaagtacga 360
 gtctaccact gccagcactc tgggtggctta agagggctct tcactctggtg tgctcttacc 420
 ggcttcagga tggctctgtt ctacatatta tcaatttcac gtaacgtttt tgagtttg 478

<210> 9779
 <211> 347
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-008-Q1-E1-H9

 <400> 9779

cccacgcgtc agatgagttc ctgcaacttc gaaaaattta aaaccatgaa acatctatta 60
 ctgctacttt tctgtgcttt tatagttcag gcccaatttc ctactgacta tgacgagga 120
 caagatgaca gacctaaggt aagtttgggt gcccgcggtc atcggcccta tgacaagaag 180
 aaggaagagg cccccagcct gacacctgtg cccctccca tcaaccgacg tggctatcgg 240
 gctcgccccg ccacagcaac tgtgggcat aagaaagtgg agagaaagcc ccctgacgct 300
 gatggctgcc tgcacgcgga cccgatctg ggtgtgttgt gtcctac 347

<210> 9780
 <211> 446
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-A5

<400> 9780

ccggctcctga actccccgggt cgacaacagc gggacgatcg ttgggatcaa atgcaaagat 60
ggaattgtcc ttggtgtgga gaagctgata acatcaaaga tgatacttgc tgggtcgaac 120
cggagacttc attccgtgca ccggaactct ggcttggctg tggctgggtt agcagcagac 180
ggtaggcaga tagtctcaag agcaaagtca gaagcagcca actatgaaaa ggtatacggga 240
gaacccatgc ctgtaaagga attagctgat cgtgttgcta gctatgttca tctgtgtaca 300
ctctactggg ggctcaggcc ttttggctgt ggagttattc ttggaggcta tgatagggaa 360
tgcacgttg acgttgccaa gataatttat ggtgtacacg acgaagcgaa agacagatct 420
tttgagctgg aactgagctg ggtatg 446

<210> 9781

<211> 473

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-010-Q1-E1-B1

<400> 9781

taccggetcg aaattcncga gtcgacggag accacacagt tgaacacgat gcgggagatc 60
aaggtgcaga agctcgtcct caacatctcc gtcggcgaga gcggcgatcg cctcactcga 120
gctgccaaagg tgttggagca gctgatcggg cagtcgccag ttttctccaa ggcgaggtag 180
actgtcaggt ctttcggcat tcgtcgtaat gagaagattg cctgctatgt gacgatcaag 240
ggtgagaagg caatgcagct tctcgagagt gggctgaaag tgaaggagta cgacctcttg 300
acgaggaact tcagtgcac tggttgcttt gggtttggga ttcattgagca cattgatctt 360
ggcatgacgt atgaccagc aaccggcatc tatggtatgg acttcttcgt gggctctggag 420
cgagctggat accgcgtctc ccgccggggc cgatgcaagg gccgtgttgg gat 473

<210> 9782

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-B10

<400> 9782

cgctgtcag gtacggctcc agaattccca ggtcgaccgc gtcttcttcg ccaacgacac 60
ctatctgccc agcacaatgc ctgcactttt ggtgcaatac aggcaggatg aactcaacaa 120
tctccgaggc gacggcacga ccggaaagta cgaggagtgg gaccgtgtgt accgctatga 180
ctactacaac gacctcgggtg agccggacaa gggccatccg cgcccgggttc tcggcggcac 240
ccaagaactc ccctatcccc gtcgttgcag aactggccga cccccaacaa aaacagaccc 300
tagatcagag agcagaattc ctcaagtaca gatacaggag gccctgaaca tctatgtccc 360
gcgcgatgag cgctttggcc acctcaagct gtctgacttc cttggctact ctctcaaggc 420
catcacccg 428

<210> 9783

<211> 72

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-B11

<400> 9783

cgcgtagtac gtcgctacac cctatagtga gtcgtattaa gtcggcagac gggagaccgg 60
agtttcgatg ca 72

<210> 9784

<211> 466

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-B5

<400> 9784

cgctgcagg taccgggtcca gaattcccgg gcaatctatc cccctaggag catgtgcgta 60
gtactttgtt ttcaatggct tggtgatttt tgcaataagt atatgagttc ttcatgacta 120
atggtgagtc catggattat acgcactctc acccttcaac cattgctagc ctcttggtgc 180
gcgcaacttt cgccggtacc atacaccac gatatacctt cctcaaaaaa gacaccatac 240
ctacctatta tggcatttcc atagccattc cgagatatat tgccatgcaa ctttccatca 300

ttccttttat tatgatacgc atcatcattg ttatattgcc ttgcatgat catgtagttg 360
 acatcatatt tgtggcaaag ccaccttcat aattctttca tacatgtcac tcttgattca 420
 ttgcatattc cggtacaccg cgggagcat tcatatacag acatac 466

<210> 9785
 <211> 471
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-010-Q1-E1-B6
 <400> 9785

acgccggccg gtaacggtcc taaattcccg ggtcgacgcc cttgaagatc ccgctgggtg 60
 acaacagaag ttttttgctt atcgtcttct atctgagtgc tctaggttca tgttgggagt 120
 ctttttcttt tgaaaactgt tgggtgtgtg gactgtgcct gatgatggcg tacgtaatat 180
 gtgcggtacc tgtttaggtg ctcgcagtgc agatttgggt gacattcaag ttttcgcccc 240
 atgatctgcc gttcctgatg acggggcgac atagtgggtt tcttgttatt gctctgaact 300
 cgcgtttact ctttctctag tcctgatagt ttcagttcct gagacagtgt atttccgtta 360
 tgaaagtaat ggaaagagga aaatccggtt cgacaaagac gtctatgggtg ttggctgggg 420
 agcctttata tttgccagct ttctttaccg gtttgttcgc aaagcgattt c 471

<210> 9786
 <211> 421
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-010-Q1-E1-B9
 <400> 9786

acacctgtca gtacgggtcc gagaattccg ggtcgacatc catgcataac taaaggacgg 60
 gaaataggat gggacagcga gagagaggag agagagaggg agggagaggg gtagagtgc 120
 ggatgggtga tggagttgct tctcgaagat ggtgggagag gcctagtaga caaactgagg 180
 gtggaactgc aatattatca ataagagtgg ggatgtgttt ctgtgtgtgc ctgtgcgtga 240
 tagatctgtc gggacacatc catggatgat gaaggggaac catgtgtttg gtaagctaac 300
 ctaactagat cggtagatta attgttggtt gtcggaggaa gggagagaca taactaatga 360

ggtagatcga tcgacgcgtg ggaaaaaacg agttataagg acctaactag ctatatgtat 420
a 421

<210> 9787
<211> 449
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-010-Q1-E1-C1

<400> 9787

cgctgcttg tacgggccg aaattcnega gtcgacctgc acatccacgt ctacgaggaa 60
atcgtctaca taggccacta caaggccagc gaggacagaa agacgctggc cttcttccag 120
cggttggaat ctttggacgc cattgttcag aagcacgtcg acctgaccac gagagacgct 180
gctacttagc tgccgttcgg tgggccggcg ccctgagtcg aagaggtgga catcatcgat 240
ggatgcatct cttcttcttg cctcctgtta ccagcactgc atcgctcgt ggccttaatg 300
ttttattagt atagtactcc ctccattccc aaatataaat ctttctagag attccagcga 360
ttgactacat acggagcaaa atgagtgaat ctacactcta agatatgtct acatacatcc 420
gtatgttgga gtccatttga aatacctaa 449

<210> 9788
<211> 54
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-C11

<400> 9788

acatcactac accctatagt gagtcgtatt aaccagcgag cggtccgagg tcgg 54

<210> 9789
<211> 388
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-C5

<400> 9789

gtaccggtcc agaattcccg ggtcgaccaa gctgaattac tattgaataa tatgttgact 60

aatgaaaata attggactct tcctgagcca attcctgagg caattcctga accaattgag 120
ccaactcctg agcctattcc taaacccagt cctaagaaga gaggtgttct atttctcagt 180
cctgaagata tgcaagaggc aaagaaatca atgaaagaaa aaggtataaa agctgtagat 240
gttaagaatt taccacctat tgaagaaata catggtctta atataccgcc tgtogaagaa 300
acacattgtc ttgataaccc gacacaggta gtaaaggtaa attctctcta tagatatgat 360
aaagttgaaa tcccgtctaa taaatttc 388

<210> 9790
<211> 388
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-010-Q1-E1-C8
<400> 9790

actcgtagta catcacaaca ccctatactg agtcgtatta agcgatgaat gagatcaatg 60
cagctgcaag gatgaggggtg gctgcaaacg agaaggcgga ggctgagaag attgtccaga 120
tcaagcgtgc cgaggggtgaa tcagaggcca agtacctgtc tggcctcggg atcgcccgcc 180
agcgccaggc cattgtggat ggcctgaggg acagcgtcct gagcttctca gtcaatgtgc 240
ctggcaccac tgcaaaggat gtgatggaca tgggtgctgat caccagtac tttgatacta 300
tgaaagaggt cggcgcgctc tccaagtcct cggcgggtgtt catcccccat ggcctggcg 360
cgggtgcgga catcgccacg cagatccg 388

<210> 9791
<211> 367
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-010-Q1-E1-D10
<400> 9791

attcccaggg tcgacctggg gcacgagatc gccgaggccg tttcggagtt cgcggccgtg 60
gtcacaccgg agcccagccc cgaagaaggc caggccggaa ggttgggact ggatagggtc 120
gcgcccggca agaagacgcc caacttctcg cagcgggaga tttccttcct gctgaggctc 180

atacccgagc tcgtacagta gcggtgtcctc ttctcggata gtagtatcca cgggtgcgccc 240
 gtgtaggttg accaatcttt gacacctcgg aactgaaacc ccaaggcccg gatgcggcat 300
 gtaaatacagg gccaccacga cccgtccgat tgtttgcatc anggtgaaat ccactagtgt 360
 ttgtgcc 367

<210> 9792
 <211> 395
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-010-Q1-E1-D2
 <400> 9792

cgctgtcgg taccgtccg agaattccag gtcgactccg angagctcac cgtcgangag 60
 cgcaaccttc tatcggttg ttacaagaat gttattggtg cccgccgtgc ctctgtggcgc 120
 atcatttctt ccatcgagca gaangaagag agccgtggca atgaggaccg tgtcacactc 180
 atcaangact accgtggaaa gattgaggtt gagctcacta agatctgtga tggatctctc 240
 aagcttcttg attccacct tgtccctca tccactgctc cagagtccaa ggtcctctac 300
 ctaaagatga aggggtgatta ctacangtac cttgcccagt tcaagagtgg aactgaaagg 360
 aaagatgctg ctgagaacaa catggtggca tacaa 395

<210> 9793
 <211> 463
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-010-Q1-E1-D6
 <400> 9793

gtaccggtcc ggaattcccg ggtcgacaca gactccactg gctcactata gcatagcacc 60
 ctcaaaatg ggacctata gatactcgat ccgtcaatct ctggtggatg ctccatcttg 120
 gaacgatact cccaccaccg ctgcctcacg ataggattcg gtgaatttct ttgcaccatg 180
 gccagagga gcagctctat gtactccgc gcgactctct tcgggagtat agccaccttt 240
 tcgctctgtt gcagatattt ggccatggat gtcgccgtca tcgctagtgt gtccttggtg 300
 tcaaaccaag actgtatctc caacatccta gctagcttca caaggtcgcg ttctgcaatc 360

ctcatgtatg tgttgtaetc ctccatcgat ctacttctcc acagcacctt cactcgccgg 420
 tggtgggtttt tgaatgggat acgagaggag tggtgctggt ttt 463

<210> 9794
 <211> 377
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-010-Q1-E1-D7
 <400> 9794

togttgttca acactacacg ctatagttag tctgtattata tgattcaca gatgacagat 60
 caaccactgc tctcaacata aacgaccctg ggcttaattc tggccttttag attatgattt 120
 ggttttcgtc tcaagtatag tatgtttatg aatagatcac gtactgctta catgtgtgtc 180
 cagttgtccc aacttgtttc tctattgaag attggaactg tttttttatt agaacgaaca 240
 gacatgcccc tacgttgac catgagaact aaatattatg tgctcgtcta tcaccaatct 300
 cataatgoga ccgtcacttg tgtgcaaaca attagaagtg ctgttttata cttgcgcttg 360
 tccctaattg gcaatgt 377

<210> 9795
 <211> 283
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-010-Q1-E1-D8
 <400> 9795

acgcgtagta caacgcaaca ccctatagt agtcgtatta taaccgacta gtcagtagca 60
 cagaacgagc gatgatagcg aaattagga atcgctgaa agatggcgaa agccgtatat 120
 gtggactgag tctttggacg atgctttgag acaagtttcc caaagagcag gatccagagt 180
 tcagtaatga agcatatgtg agcccagtag ttcacatctc gaaatcatgc gcaacgtttg 240
 cgcttatccc tagcgattgc ttatgggatg tcattagcgc gaa 283

<210> 9796
 <211> 452
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-D9

<400> 9796

gtaccgctcc gagaattccc agggtcgact tccaccaaag cgaaatccac catctcatcg 60
aaagacggga cacctttgcc tctatcaagt ggtatcagat ttccagggtg ctcggtgaga 120
ttttacagtt tttcgtagtt tagatcgggt ctgttcttca tacctacagt ccacgaaaaa 180
gccacaaaaa aaattagggg tagttcatca tatccgaacc aatctgagcc tttgcataat 240
cttttttaggg ttttgctttg ttgaatttgc cgttgcatcg tcgggtctagt tgctggtctt 300
agagtctagt ctttttagagt ttcgagttct ggtcataagt tgtcacaccg ccgccgcacc 360
atcatcatcg cccctgccat ctaccaccac cgctccgaat ccgtatccat ataccaccac 420
caatccgtgt ccatatacca ccaccgattc at 452

<210> 9797

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-E11

<400> 9797

acgcctgtag gtacgcctcc gagaattcca gggtcgacac gcatctcggt gagaaaattc 60
tcaacccttc ttaccttgat aatatggtaa gcacgttcag taaccttcag gggatactga 120
agtccgcagg gacatccacc accgcgtggg tcggcgaagc tggaggggct tacaacagtg 180
gccaccacct tgtaactgat gcatttgtgt tcagtttctg gtacctggat caactcggga 240
tgtccgcaa gtacgacaca aagagttatt gcaggcaa at cttgggttga ggaattacg 300
gcctgctcaa cacaacaaca tttgaacaa atcctgatta ctacagtgc ctgctatggc 360
atcgctcat gggaaccaag gttctctcca cgacattcaa cggcacaac aagattcgtg 420
cttatacaca ttgctcaaaa gattcggaag gga 453

<210> 9798

<211> 459

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-010-Q1-E1-E4

<400> 9798

cgctgtccg taccgtccg aaattcncag gtcgaccgc tttttttgat gtaatttttt 60
tttttttttg ctactttcct ctgtttttca tcgctttttt ccttttagca ttttttacca 120
ggcgtacct gtaaacttca gattatctac aagatgtgaa cagaagatac agatgcaacc 180
gaagtgacca ggtgacatac tactccaggt ggaattaaag gcaagtgtgg ttacgcacca 240
ccatacgtgc aacagtagca ggtancgttg tctggacaca ggagtagtct tgggtggagta 300
ttacgatgca acgtgcagtt ggggacgcga caggcggaaa ggcggcaggc gcgacaatcg 360
gcaacaagtg aaacaggctg atgcaatctt gctttgtttt tctcagatta tgaatgagct 420
tgcgatagaa aaagtacggc ggacaaaaac agattgatc 459

<210> 9799

<211> 236

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-E6

<400> 9799

tactgagact catagttcaa cattacaccc tatagtgagt cgtattagac cgcggttaag 60
tggtccgact tggaaaaggt cgtcaccagg attattggcg tctcgacctc ggtttcggaa 120
gcagtaaatt cagctgggat tagtctttct ccggcgacaa ctgtaacact atcatgcaat 180
atttcatgaa gatcacatga gttgtgaatt tagtacaatt taatcgctag gtttct 236

<210> 9800

<211> 278

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-E7

<400> 9800

atagtgagtc gtattacaac cggtcaggct agcagcgtgc aagtgtgacc tgagtgggtc 60
tggttaagtg tgtggcggtg tgtgtttgtg tgtatggact aggtggctct ggcttggggg 120
cagatctgaa cagaagagga aatagacgga accgtctgaa tcccagagac acggtgaagac 180

gttggaggga aatagaggcg ctctagagga tctaagcgta cagtacgcgt gcatggcaag 240
tcatagctct tcgatagtgt cagctaaatt cagttcag 278

<210> 9801
<211> 461
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F3

<400> 9801

acgcctgccc gtaccggctc gtagattccc ggggccacag gatggttgca tgggtccaaac 60
atatcaacgt gtcagacccg ctcgaggaag gttgcaagct tgggccagtt gttagtgaag 120
gacagtatga gaagatcaag aagttttag cgaatgctaa aagtgaaggt gccaccattc 180
tgactggggg tgtcatgccc aagcatctgg agaaaggttt cttcattgaa cccacaatca 240
tcaactgacat caacacatca atggagattt ggaggaggga agtcttttgt ccagtcctct 300
gtgtgaagga attttctacc gaagaggaag ccatcgaact ggccaatgat actcattatg 360
gtctggctgg tgccgtgatt tctggtgacc gtgagcgatg ccagagatta gccgaggaga 420
ttgacgctgg atgcatttgg gtgaactgct cgcaggcttg c 461

<210> 9802
<211> 470
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-010-Q1-E1-F4

<400> 9802

cgcctgcccc taccggctct aaattcncgg gtcgacggct acttctcatt atctctgcta 60
cagggatgac aatcagtctt ctcgttgttt ctgtgtcatt ttttgtgaag gacaacatag 120
aggaagcttc tcatttacac tttgtgatga gtatgctttc actggctgga cttgtggcat 180
ttgtgcttgc attttccctt ggcatgggag ccatcccatg gattataatg tctgagattc 240
ttcctgttaa catcaagagc cttgccggaa gcaccgccac ctttgcaaac tggatgacgt 300
cgtggctcat cacgatgacc gcgagcttga tgctaaactg gagcaacgga ggaacctttg 360
ctatatacgc cgcggtgtcc atgggcaccc tcctctttgt gtgcctgtgt gtgccggaga 420

ccaaggggaag ggacctggaa gagatcgcg tctcggtccg ctgaagcccg

470

<210> 9803

<211> 201

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F5

<400> 9803

cactactccc tatagctgag tcgtattata gcaacctcaa aatccaatct agagccctat 60

tctgacatct tgttgatgg gaacacgacc atggaagggt tcatcatcct cattggggct 120

cctgggatga ggcactacta gttcaccaca taactatctg tccgtacgca ctcatcccaa 180

ttcctgattc cctctcttta t 201

<210> 9804

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F8

<400> 9804

acgcctgcag gttacgggtcc agaactcccg ggtcgacggc tcatcgccat gtgctcgatt 60

tcagataggt cccacgcact cactcccgtg tatgaggctg ctacaagatc tggcactgaa 120

gatcaaccat ccccttctcc aaaaactgat tcagaagagt ccgataccaa ggatgtggtc 180

ttaccaggag tcaatctcat atttgatggc gctcagctgc acccgttcga cattggcgct 240

tgcctccacg cccgccaacc cttgtcattg ataactgatg cgtcggacgc gtcattggcc 300

atgacatgac tgatatgcat ctcagcacgt tgccatcaca atttctgttc cgtttaatct 360

atgtgcggaa ttgaatattg gtgtagacga ct 392

<210> 9805

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-G10

<400> 9805

gcctgcaggt accgctccga gaattcccag gtcgacgcag tggagttctt ttgagcacia 60
gagggcgatc cctaagggtta agctgttctg atagcaatac cttacacctg aacatccggt 120
ggacattatc gatcaacgac gacaactggg gaaagtacat atgggtggctg acttaggcat 180
tatggattta agactccggc tatggcatgg cgaagtcata cccagcagct acatcgggct 240
tgtcaaccgg atgatcaata cccacctgat cttgatcgtc atggcttgca tcaagatcac 300
ctcacgatgt acatctgcca tgatcaactc gctcgtctc gatcctgaca agtgatgtct 360
cccctgacga caccttgctg cttctgcgcc gccaaagc 397

<210> 9806
<211> 439
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-010-Q1-E1-G2
<400> 9806

cccgggtcga cacagcccaa tatcgacgaa taaacttcag agtatgttgt ttctgtcatc 60
tgcattcagc acaaaatcta acgcactaca caacatccat ctaaagcaca gcactaagtc 120
ttcttccttc ctttcccttc gccgacatcg cagcactcaa ctgccgccat ggacgcagga 180
acaaacctca gatttggttct gacctctttg tagttcttct gctcacattt cttccttcca 240
aagtccttct ccagtcggcc aaacatccac tacagaaaaa ctggaaaaat ggatgagttc 300
tcatttttca cagatctgtc aagaaggaca aaacgaagaa aagaaaaaag gggagagaag 360
aacctgtttc acgtgtcaga actaggtagt taaagcagaa taccaccag aaaatcaaaa 420
gatataataa caatgcgtg 439

<210> 9807
<211> 483
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-010-Q1-E1-G4
<400> 9807

cgctgtccg taccgtccg aaattcncga ggtcgacggc catgttgga actaaggctt 60

ctccatagcc cgctcaatc tccacctgc cctccttgct ggtatacatg catctcattc 120
 agtctgttcg ttgtacaact tgtagtgtcc acaattcaga agtaggagtt cacagaaaac 180
 tgcttctctg aatcactcat cgttcagttt cgttctcttg tggtaattc aaagatccat 240
 tgccacaaat gtgaatatga gtgcaaataat gcttgtcttt tgaactctgg aactgttgcc 300
 tatacatgcc tattattgct gaatatgatg gaaatgtgga tgtttaagac ggagtattta 360
 tcaggaagaa gcttatagga cttccaataa gcaagaagtt tcatataatt ttcttgatg 420
 caataggatg aactttcatt ttattggaac gtgctatagt ataaatttca aagaccact 480
 tca 483

<210> 9808
 <211> 478
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-G5

<400> 9808

cgctgccgg taacggtccg aaattccccg gtcgacaaga attggtcatt tgcgtggtta 60
 gtcataaaat cctacataaa atttatggat cactgaatat gatatgtttg attccttgca 120
 atagttttgc gatatagaga tgataatatg tgggaggtag tagtagatgg ttgtgtttag 180
 taataatatt ttgtgttaag gtttgtgatt cccgaagcat gcacgtttag tctctcatta 240
 tgctatgaag ttggagcatg atttattatt gattgtcttc cttatgagtg gcgggcgggg 300
 acgagagatg gtattttcct accaatctat cccctaagg gcatgcgtag tagtactttg 360
 ctttgaggga taataaactt ttgcaataag tatatgagtt ctttatgact aatgtcagtc 420
 catggattat acacactctt acctttccac aatttgctag cctctacggt accgtgca 478

<210> 9809
 <211> 451
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-G7

<400> 9809

cgctgcagg taacggtccg aaattccccg gtcgacatcg agccggatgc gcatgtcaag 60

caggcgatga atgagatcaa tgcagctgca aggatgaggg tggctgcaaa cgagaaggcg 120
gaggctgaga agattgtcca gatcaagcgt gccgaagggtg aagcagagggc caagtacctg 180
tctggcctcg gtatcgcccc ccagcgccag gccattgtgg atggcctgag ggacagcgtc 240
ctgggcttct cagtcaacgt gcctggcacc actgcaaagg atgtgatgga catggtgctg 300
atcaccagct actttgatac tatgaaagag atcggcgcat cctccaagtc ctggcggtg 360
ttcatcccc atggccttg tgcgggtgcgc gacatcgcca cgcagatccg cgatggtctt 420
cttcaaggcc agtctgcctc tgacaactag c 451

<210> 9810
<211> 400
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-010-Q1-E1-H10
<400> 9810

cctgtaagta cgctccgaaa ttcccaggtc gacctcacgg ccgacaagaa gaaaataaag 60
gctgctgtca agaaaatgta tgacattcag gccagaagg ttaacaccct catcaggcct 120
gatggcaaga acaacgcgta cgtgaagctg acacgagact acgatgctct tgacgtggcc 180
aacaaaatcg ggatcatata agccagaggg agggctctgc agtaggcact tgtgtcgtgg 240
gttcttatgt tattggaatt ttgtagttgt tacttagcaa agggccttaa tggttccatt 300
gcctaccata tcgctgcaca ctttcatgaa tttgatgcaa tcgaactgac ttgtgttgat 360
actaatatga gctttgcgtt tggctcttacc taagtcaggg 400

<210> 9811
<211> 453
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-010-Q1-E1-H3
<400> 9811

acgcctgtcc gtaccgctcc gagattcncg aggtcgacac cggcttgctt cccaccatgt 60
ctcccgccac cctgacgacg agcacggtgt ctgctccaca ctaccctagt acaacatggt 120
gctcagatct gtcattggagg aaacgcgatg cagggtgtgat ttttcatac aaagaagctc 180

tccttttctg cttgatgaaa actcacaaga tgctatcgcg ttatcttcta tcttctcctt 240
gctgcacatt ttccctacct tccaccgagt cagtacttgg atccaagtct ttcttattgc 300
tacttatttt tattttgcta ctaaattgat gcaggtgcta ccagtgaaag gattggagat 360
tggttctagt agttgtaggt tcgtttggaa ttcataatgc tcatgatttg caaagcctat 420
cagccagaac acgttgatgc atagcattaa atg 453

<210> 9812
<211> 482
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-H7

<400> 9812
cgctgcagg taacgggccg aaattcccgg gtcgactcag gaggttttac gcattccctg 60
catgattagc ataacgaata tatttcattc aacagacaag atcaccactc atcatacccc 120
tcatgccatg ccggacacac tcgtctcgac gaggaactgg ggacaagctc ggggtctaccc 180
aagacagaga ctttcccggt ttccttcggg taggcacgaa aggcacacga ggatgatcat 240
tatcacaagc atgtccattt ccaacagcaa agaagtttcc aataagcatg catgcaaattg 300
atcacatcac cacatagaat agcgagttct acgtattgag gtgggtgtcat aatcgtgtca 360
aacaatacat gcaaaatatt atgccagggt tcagaatgct tgccttcaag gtgtggaaat 420
gcagggtgca ctccaaaact ttgaaagct ttctcctctc tccaaaaatc ctatttagaa 480
tg 482

<210> 9813
<211> 442
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-H8

<400> 9813
attcccggt cgaccgggct attggtcagc ttgcaaggct cctgtgggaa gctgagaagt 60
cggggcacta ccagtacttc ctctgtgtca ctggagacca ctctactcct gttgagtacg 120
gagaccacag ctttgagcct gtcccgtttg cgatatgccg gctgagagat ttcgtgggag 180

cgattgggga gggcaatgtg atgaataccc cctcgcacga tttcccgtg ctttcgggta 240
aatccggaga agatttaact gatgattcag aaccagcgga acacaagcct gaggagcgta 300
aagcttttag cggcgataca gtgtgtgaat acaccgagat tgctgctgca aggggctgcc 360
ttgggcgggtt ccctggaagt gagatgatgg gcatcatcaa gaagttcatg aaagcaaagg 420
aacattaacg ccagttcgat tg 442

<210> 9814
<211> 348
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-011-Q1-E1-A1
<400> 9814

acgcctgccg gtaccggtcc gaaattcccg ggctcgactcc gaggaactca ctgtgggtga 60
acgcagtctc atctccggcg gatataaaaa tgtcaatgga gacagccgtg cctcacggcg 120
catcatgtcc tcgattgaag aaactgagga aagacctggc atccatgacc gggtcagact 180
catcaaggaa gaacatcgga agatatagac tgagcttaac aggatctgtg atagcatcat 240
caatctgctc gaaaccacc ttataccgtc atccactgcc cctgaatcca cagtccctta 300
tcgatctatg ggtgatgact actactcgta tcgtgcccaa ttcattgag 348

<210> 9815
<211> 437
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-011-Q1-E1-A3
<400> 9815

tagccgtccg aaattcacgg gtccacgagg cttttgaggt ggctcgtaat agcgttgaac 60
ttctttccac agtgctatca tcattctccac aaaaagaggc tctagaggat gacttgacta 120
ccaccctggg ccagcaatgc cgacagtgtc aatacacgat ccggagaatc gttgaaactg 180
caggtgataa tgaggctcaa ctcttcgagg cactgagtat ccacgatgaa ctccagaaag 240
ttctgtccaa gtacgaagac ctcaaggagc ccatcgctgc agagcctgag ccagaaccag 300

cgatgattcc agtcacggtg gagcctgagg aatcnccacg cgctgttggc aaagacaccc 360
cctcgaggaa atcagctggg tccggtgggc gctctagcgg cggggatgac ttgcttcagg 420
atctcgacga catgac 437

<210> 9816
<211> 455
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-011-Q1-E1-A4
<400> 9816

ttcacgggtc gactccccta gcgtttctgg aatactaggg tatttagagc aaagagccgg 60
tgccgggaggc caccgaggtg ggcataaccc accagggcgc gccaggtgg gttgtgcccc 120
cctcgggcac ccctcttgta ttttcccagg cgcgcctagg tgggttgtgc cctcctcagg 180
catccctctg gtatttcttt ggcccatctt gtgtctactg gtcgagaaaa atcaccaaaa 240
agttttgctg catttgact ccgtttggta ttgatttccc acgaagtaaa aaacaagcaa 300
aaaaagaaca actggccctg ggcactatgt caataggta gttccaaaaa ttgtataaa 360
gttgctataa aatgattgta aaacatcaa gaatgataat ataacagcat ggaacaataa 420
aaaattatag atacgttgga gacgtatcag cattc 455

<210> 9817
<211> 136
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-011-Q1-E1-A5
<400> 9817

gttagtccca aaagtaatat aaaagtgcct agtaaagccc attaaacatc taagatggat 60
aatataatgg catgaatact tcataaatta tagatacggt ggagacgtat cagaagcata 120
tacccaaacc tgcccc 136

<210> 9818
<211> 472
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-011-Q1-E1-A6

<400> 9818

accctgccgg taccagtccg aaattcccgg gtcgacacat gcattctggg cagcttcac 60
ttggaggctg cggtgacgta tgcgacgctc gtctagtga gctactgccg atggtcgagg 120
catcgttggc agtctgcgcc atcaagttcg ggggtgctcag gggggaaccc cagatctggg 180
tcttccggat cggatgatga tggcgttcta tcactttccc ttctgggggc atcgtcttgg 240
agcaagtgct ggctggaggg atgggtggagc ggtgtttcat cccaaacttt gatggcggcg 300
gagatcgatg gcatggcgct gtggagactc ggcgtccaac atgcggagat gggctcgcgc 360
aagangaggt tgctgtctgg cgtcatggtg acgtcgatgg cagaatggcc agacagggta 420
naagccctaa tatgatctng agacatgtgg aagatggcgg ccacgacaca cg 472

<210> 9819

<211> 438

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-A7

<400> 9819

tccgaaattc cggggtcgac tatcacgatg tccgggggtct tgtcgcgaat gatccgcac 60
tccataactca gcgaaaatag ccgaacgaag ttgtagtga gcggatgaag gttcaacata 120
gcgtggatgt catcaaaccg caggacgatc gtacccccga tggagttatc cacaaagccc 180
ttgccctatg gcaccttggc cgcgaaaacc gggtatgcca catccttctc tccgagacgc 240
cgcttctcca aagaaagaac actgtcatgc agactccgca tagcaccggt tgcagcattg 300
agcatatttc tcagtagcat cagcctaccc gccacatgca ccctcctega gatatcctca 360
ggatgaaggtg gccatcctg agcacgaatc gtactcgggt cgggctggcc cgcaaccttg 420
ttagtctttc ttttgcgt 438

<210> 9820

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-B1

<400> 9820

ggtagcctg ccggtagccg tccgaaattc acgggtcgac atactttttg cacttcagat 60
tcattcagct attaacatgt atttctccat cagctgctgt ttagagcatc taccattatg 120
atagtcatca tagtggattg ctgtagagtt ttatgtacat gagattggat tgttaaactc 180
ctttcacacg ccaagtagat aaagcggagc aaattattac atccgtttga atatctggac 240
tgcgcttatg tattttctga gacaacttat gtttgcttct cacactaatg attttgtttg 300
tttggggaaa caagttacca tagccgcctt gtcacctaag ttgctctgt attttgatga 360
agccttgggt tcagcaagaa gttagaggag gaagaagtaa agcgagcaat agagaatgga 420
tggattaaag actcaataag agatgttgaa gaaatctgct gatgcattta t 471

<210> 9821

<211> 467

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-B2

<400> 9821

acgcctgccc gtagcgggtcc gagattcacg ggtcgacgga gaagaaacag ttgaacacga 60
tgcgggagat caaggtgcag aagctcgtcc tcaacatctc cgtcggcgag agcggcgatc 120
gcctcactcg agctgccaag gtgttgagc agctgagcgg gcagtcgcca gttttctcca 180
aggcgaggtta cactgtcagg tctttcggca ttcgtcgtaa tgagaagatt gcctgctatg 240
tgacgatcag gggtgagaag gcaatgcagc ttctcgagag tgggctgaag gtgaaggagt 300
acgagctctt gaggaggaac ttcagtgaca ctggttgctt tgggtttggt attcaggagc 360
acattgatct tggcatgaag tatgacccat caaccggcat ctatggtatg gacttcttcg 420
tggttctgga gcgagctgga taccgctct cccgccggcg ccgatgc 467

<210> 9822

<211> 378

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-B3

<400> 9822

ttcacgggtc gaccaggtgg cgctgcgccg aggtgctgag gctatgcaac taggctgtga 60
 tgagcatgcy acaagtacag gtcacgatt cgtaagacc tcaggtgcga ttgggatgca 120
 aatcaactca ttgccatctc gtgcacacac agctttgcat cacaaaatac tcagtgtcgt 180
 agaagttaat tgtagtcata gattcgacac atttgatcat ccaaacaggt atgtgtgtca 240
 ataggtgttc ctttcacgcy ttgatatgag gatgatctac gtcaaggag gttacgtact 300
 tgagaagtct gcttctaccg acaaaaagta gtcgccgac tagaggattc aagcttaggt 360
 acacttgcat tcgacctc 378

<210> 9823
 <211> 447
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-011-Q1-E1-B6
 <400> 9823

tccgagactc gcggtccac aagaaggatg cacagctcta ggcgatgagt gagcagtgca 60
 agttcatggc tctgaaccgt ccaaactagc agaagacaga tacaccagat aagaaacctg 120
 ctcttgtcca actgatgtca cttacagtta cattgccgcy gcagtgaaaa gaaaaagaag 180
 ttatatccct ggggtccag aataaccgac gatgatgccc tgttcccggg tccgtgattc 240
 gtagtgcaaa cccaatcgtg aattgttgtt accttagatg tgggtgtatc aaatcgcaac 300
 catgacagac atttgttgta tcttgattgt gtgtgtaaag gctgggcgca tttgcccggc 360
 tttcataaat cattagagat gtataaccgc agttccatcc aaaanaaaaa aaaaaaaaaa 420
 aaaaaaaaaa gcggccgctc tagagga 447

<210> 9824
 <211> 435
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-011-Q1-E1-B7
 <400> 9824

cctgccggtg ccagggtccg aattcccggg tcgaccccg gttctactcg gagcgcttcc 60

tcaagttcat ccagaccgtc ttccccgaga actcgtagcg cctcggccaa ccatcactcc 120
ggcgaacgct ccagccccag gcatggcatg atcttccgcc actggcgggc ctgtgtacag 180
aacgaggaac gagggcatcc gcagagagtc ttctggaggg ctggattatt ttcaagcata 240
agcacaaacc atgtctttat tctgggaata aaggtggcat ggctgggtta tggaggatgg 300
agaatccacc gacgtcncgc tgtggaagag catctgactt tctgcgcgaa tatatgtgtc 360
cgctcgagatc angagcaatg tgctgggcat ctggaagatg tcgggaataa attcttggtc 420
tacttttggt gttcg 435

<210> 9825
<211> 449
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-011-Q1-E1-B8
<400> 9825

attcccgggt cgacgcttca cctggtgctg cgctccgcg gcggcagcag aggtggatac 60
cccaagaacc ttgagcccaa cctccgcac cttgctcaaa agtacaatga gaacaaacta 120
gtctgccgca ggtgctatgc acgactaccc accagggcca ccaactgccg taagaagaag 180
tgtggccata acaatcagct aagggaaaag aagaggttta tgtccaagtt tgccaacgct 240
tcctaaacgt tggaaatatg ctgaatcaac cgtctagcgt catatatatt ggagtttaag 300
ttctgtccct tgtttgaagt catgttgat ttcgctgaat cgtctagcgt cgtcatatat 360
agtggagtct aagatttgc cagttgatag tcctggtgga ttttgaacct atgtatgctt 420
tggaatatat tatctatcan atatcctga 449

<210> 9826
<211> 425
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-011-Q1-E1-C1
<400> 9826

ttcacgggtc gacattcgac gcaacgtgcg ccaaagagga ttttcgagac ctctatttg 60

acaccttcag cgcaaggtaa gttgtacaac gtcacagct caccctcgtg ggctaggcct 120
 agcggcggtg gcacgctcac tcaogcgctcc gcctaagttt tttctttcat ttcacggttt 180
 ggcgggttgac acattgagca gttgacccgt ttgatcagtt gtctagttgc atgtttgact 240
 attgtctctg agagcagttt ttttttgcg gtgtctccta gagcagttga caattaactt 300
 ttcttttaaaa agttcatgaa atcaaaaaat gttcatgcat ttgaagaaag ttcacaattt 360
 tgacaacaaa gtttgtgaat ttcgaaacaa gttcgcgatt ctcaagagag gttcaagttt 420
 ttttt 425

<210> 9827
 <211> 454
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-011-Q1-E1-C2
 <400> 9827

ggtccgaaat tcacgggtcg accaattgat ggaaaagcga ataattatga gattatctag 60
 gcatgatcat gtatataggc atcacgtccg caacaagtag accgactcct gcctgcatct 120
 actactatta ctccacacat cgaccgactc ctgcctacat ctagagtatt aagttcataa 180
 gaacagagta atgcattaag caaggtgaca tgatgtagag gtatagactc aagcaatatg 240
 atataaactc catcttggtta tactcgatgg caacaatata atacatgcct tgcaaccctt 300
 tctgtcactt ggtaaggaca ccgcaagatt gaacccaaag ctaagcactt ctcccatggc 360
 aagaaagatc aatctagtag gccaaaccaa actgataatt cgaagagact tgcananggt 420
 actcaatcat acataanaga attcagagaa gatc 454

<210> 9828
 <211> 468
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-011-Q1-E1-C8
 <400> 9828

tacctgccgt acagtccaaa attcccgggt cgaccctga atctcgagga cgagattttt 60
 tcaagtgggg gcgagttgtc acatccctag tctggtatga tctagactag ctagtcatgt 120

gtgcatcatg tttaaatttc atttaattct gaaatgagga tttgtgaaac cctcaggatc 180
atctctgaaa atgacccaaa taaaaattgt tccaaaaagg tccaagaaaa tgctcatggt 240
gctctctgaa aatattggac agagataaaa atgaaaccaa tatttttagt agtcataag 300
tctttatttt gggcatttgg aattaatgca taattatttg catttgatat atatttggtta 360
tatacataat atatgtccaa aaattatgcc atttataaag gagctctgga atatataact 420
agcctccata aaaattggca taagaaaata aaatgggtta gtattttt 468

<210> 9829

<211> 372

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-D1

<400> 9829

tccgagaatt cacgggtcga cctgctgttt ctttgcactc tcacaaggct cagtcacaaa 60
ggctttcagc gttgcatcgt tttaagtctg gtcagggtccc tgtgttgatc gctaccgatg 120
tggccagtcg tgggctggat atccaaactg ttgatcttgt tatcaactat gacatcccaa 180
ggtttccacg tgattatata catagggttg ggcgaactgc aagagctacc aggggagggc 240
tctcaatatg ctttgtgacc cagagggata tatgtctcct acatgagata gaagatgacg 300
tggggaatcg attcagtgc tatgagtgcg acgacaaaga agtcacaaaa gatattacaa 360
aggtattcaa ag 372

<210> 9830

<211> 479

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-011-Q1-E1-D2

<400> 9830

acgcctgccg gtagcgggtcc gaaattcacg ggtcgaccca aagttaatta ctctgggtga 60
atctgatcct ttccatgggt atgaaactga aactgttgtg gcacatctta ctaaattgaa 120
tgacatagcc acccttttta ctcatgatga gaaaactcac tattacttta ttctcaaatt 180

atttcctttc tcattaaagg gtgatgctaa atcttggtat aatactcctg ctccctgggtg 240
 tgtgcgtagt ccccaggata tgatttatta cttctgtgaa aaatattttc cagctcatat 300
 gaaacaagtt gccttatagg aaatatttaa ctttgtgcaa actaaagaag agaatctccc 360
 acaagcttgg gggaggcttt gccagttact tagttatttg cctgatcacc ctcttaagaa 420
 aaatgaaata cttatcttct ataatggact aaccgatgct tctanggact tcctagata 479

<210> 9831
 <211> 441
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-011-Q1-E1-D3

<400> 9831

acgcctgccg gtagcgggtcc gaaattcacg ggtcgacgcg aggcctcgga ttgatgttgt 60
 gaagcgcttg gcctgcatag agggtgccca gatggccttc gcccggtgtca agatgcaatt 120
 ggaaaagatg aaggccaccg aagtggcaac cacaggcccg cccgaaggca aagatcatcg 180
 aaagccggag aggtacttcg atgacgtcct agaaggagcc tgagtgataa aggggtcaatg 240
 ttctaaggac gtaatatattg attgaatgtt ttcaggttgt acaaactttg tcatgaaccc 300
 atgttggtat atatctatgt ttgcgccttt tgttcaagcg atttttcctc ctgtgcggcc 360
 atttattgta ctacatgggt gtttgacata acgcgtgacc acactttatc caacgtcttg 420
 gtccgtaaag gangtgtccg c 441

<210> 9832
 <211> 479
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-D4

<400> 9832

acgcttgccg tgacgggtccg aaattcacgg gtccactgac agtacaacat gggatactat 60
 cttaccgatg gtatctatcc tcagtgggcg gcatttgtga agaccatata cgagctacgt 120
 ggcaataaac agagccactt tgcaacaatg caggaagcgg ttaggaagga tgtggagagg 180
 gcatttggtg tgcttcaagc ttgttgggga attttatgga gcgctacaat gatgtgggaa 240

tcagaaactt tgtggcagct gatgacatgt tgtgctattc tgcacaatat gattgtcgag 300
gatgagggtg atggtgtagc ccaaaccat gatttcgaag cacctagaga acaagttgaa 360
atccccgaag atcaagatgt agctcaactg atgaactttc tgcaaagca tcagaatctt 420
caagatcagc aagtgcatat gcaactactc aatgatcttg cagagcacat gtggaccca 479

<210> 9833
<211> 447
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-011-Q1-E1-D5
<400> 9833

cctgccggtg ccggtccgag attccccggg ccaccccagg cttgaaagga acttcaacga 60
ggtcgaaatg ttccgtatga ttgaatctgc agccgcctgc attcgacact cgatcatcaa 120
gaggcccaga atgagccagg tgggtgogggt cctcgatagc ttagcggata tcgacctaac 180
caacggcgctc cagccagggc agagcgagct cttcaacgtg gcaaacacgg cggacatcag 240
gatgttccag cagatggtgc agggcaacca ggacgacagc tccgccttca gccagtatag 300
ctggatcagt cgcagtaggg ccgacgcoga ggccacctcc tcaaactccc ggatcttatg 360
accgtctttg tttccgtgct ccacatgtac gtagccattc ttctcgacc actgattcgg 420
ccgggctgtg ttatcgacca tcgaaaa 447

<210> 9834
<211> 452
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-011-Q1-E1-D6
<400> 9834

attccccggg cgaccaggct gagaaaatgg gacttgacta catggatggt gaaagtctca 60
agaagatgaa caagaacaag aagcttgta agaagctagc caagaagta catgctttct 120
tggcatcaga ggccataatc aagcagatcc ctggtctcct tggccctggt cttaacaagg 180
caggcaagtt tccactctg gttagtcacc aggaatctct tgaagccaag gtcaacgaga 240
caaaagctac agtcaagttc cagctaaaga aggttctttg catgggtggt gctgtatgca 300

acttgtcgat ggacgagaag cagatctaac agaacatcca aatgagcgtc aacttccttg 360
 tgtccctcct gaagaagaat tggcagaatg tgatgtgcct gtacgtgaag agcaccatgg 420
 ggaagcgtgt acgtgtgttc taagtgtgtg cg 452

<210> 9835
 <211> 455
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-011-Q1-E1-D8
 <400> 9835

attccccgggt cgacggcgac acagtaatcg gcgactctta cgcaatagca ttgtatttgg 60
 aggacaagta cccccaacgt cctcttttgc ctcaagacct taaaaagaag gccctgaata 120
 tccagatagc aagcattgtg tgttctggta ttcaacctct tcacaatctc accttgggtga 180
 gatttatcga gcaaaagggt ggaacagggg agagcatccc gtgggtccaa caacagattg 240
 atagaggttt cacagctgtt gagaacatga tcaaaggctg tgctgggaag tttgctatgg 300
 gagatgaagt ccaactggca gatgtattcc ttgcacccca gatttttgcg gcggtgactc 360
 gttatcaaac ggacatgtcg aactatccca cctcgcgat gctccatggt cagtatatga 420
 cacaccctgc atttgaagct gcgctcgtcg accgg 455

<210> 9836
 <211> 471
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-011-Q1-E1-E1
 <400> 9836

acgcctgccg gtagcgggtcc gaaattcacg ggtagaccaa acggcgtgtc ttcattctgg 60
 tgcattgaaat tgctccttac attcgccatt cctaaaagag tagaaagtgg agaggggtca 120
 gaaatgagaa gagagaagct ttctagggct taagcttagt ggtagtgtcc tacagtcagc 180
 gtgtgtctctg ataccaactt tgtagcgacc agacctcaaa tggcctgtgc tgctgtgcac 240
 cagtgtcatc cctggatcag taatgctgac acgcacagta caaatggagg atttataaca 300
 gagtagcaat cacacactta ttacatcgat atctccaaag agattaagta tgataaacat 360

ggcttaaggc catctaataa cgataacagc agaagacttg gaagataagt gagtccatca 420
actccagcgg catcactgag ttataagaca cgacctaaag cactcactcg t 471

<210> 9837

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-E2

<400> 9837

acgcctgccc gtaccggtcc gaaattcacg ggtcgacgtc tgcgacgacg cccacccccca 60
gtgccccaaag ggctgctcgg cctgcccgtt ggtgacgccc agccctcaca agacgttccg 120
gtgcgcccac atgaagagca ccgtcgatgg cacctgcggc gggccatgca aaaagcactg 180
atccgttcag ggcttcagtc tcagacgagg ggtgccgctt aaaataaagc tcagatgaga 240
tgagcagtca tgggcgcctat gcttctctgt gggtcgtgct atacggccaa caatatgtat 300
actgctatcg tcgtgtcttg tcaatgtgtt tcctctctcg agaaaggtgg tgggtgcttg 360
acttgtgttc acctatcctc cgtgaataaaa cacatgtgat gattgtgtgt gcct 414

<210> 9838

<211> 342

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-011-Q1-E1-F1

<400> 9838

ttcacgggtc cacgtccggg aagtagtcgt cggagtcctg gatgaagaag ccagtagtcg 60
cgcagagcgc tcctgtaaca cccacgatgc ggctatatcc cccacgtgtc gaggcacgac 120
ttagaggcat aaccgcattg tggttgttac aagttggtta tcagagccat ccccgactta 180
ggagcccccc gcttgatcga atcgctgacg ttgttgagtc tagaaaaaaa tgctttgagt 240
cttaggatta tatatatcgg agagtaggat tctttttact cctcagtcnc ttcgtcgtc 300
tggtagggcc cctgacgtag aagttttgac tctcctctcc ac 342

<210> 9839

<211> 455
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-011-Q1-E1-F3

 <400> 9839

```

acgcctgccn gtagcggtcc gaaattcacg ggtcgacttt gacgatccga ctacgaacgt   60
gcgaggacgt cgcgccttag caatcgctaa accaactctg agaggttatt gaccacgccg  120
gatcacgata aacctgacca cgagggtctg tttcctgcga gcaaacgaag aacaagcaag  180
aaactaagat tgcaatctgg atattgtgaa tataagatga aagctttatt gatcaagggtg  240
gggttctgtg acgcctttgt ctggtcgttg aacacaaacg aagtacgcga agttgcagct  300
atggcgaact ttaatctaaa caaaacccca aagtctaaac ggtgccctaa gggctgtata  360
tatggaggaa gagaggggga atttcgtggc ccttgggtga ngggtccaaa atcaacccta  420
tctattgttt tcccacacat acggactcta aaaat                                455
  
```

<210> 9840
 <211> 442
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-011-Q1-E1-F4

 <400> 9840

```

ttcacgggtc cacgacattg tcatcatggg gcccttattt ctacacaata tgttcccctt   60
tgagagggtc atgggagtc taaagaaata tgtccgtaac cgcgctaggc cagaaggaag  120
catctccatg ggccatcaaa cagaggatgt tatcgggttt tgtgttgact tcattcctgg  180
ccttaagaag atatgtctcc ctaaategtg gtacgagggg agactgactg gaaaaggcac  240
tcttggaagt gactcaataa tatgcagga caaatattct tgggtctcaag cacactacac  300
agttctatag aactctacct tggcgacccc gtatgtcgat gaacacaaga acagtctgcg  360
ctccaaacac ccggagcagt gggacgactg gattacatgt gaacacatca ggaccttcag  420
cagttggttg gaaacacgtc tc                                           442
  
```

<210> 9841
 <211> 401

<212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-011-Q1-E1-G1
 <400> 9841

tccgaaattc acgggtcgac ggctcgtag aggttcgtgg actggatggg gtcgtggctg 60
 ctgatgtacg gagaggcgaa gctgctgctc gtcattctacc tctggcacc cagcacacgg 120
 ggtgccccgc atgtgtacga tggcttcctc catctgttgg tggcgttaca cgaggccgac 180
 atcgaccggg gctgcttga gctgatggct anggcgaggg acgtgacgac gtcacaactc 240
 aaggcggtgg ctgccatcgg tcaagtgtgg ctatcgagg ctgcccgctg tgtttcgttg 300
 cagttgcagg ccgcgagatc aggcggggaa ggcgccacgc attgacgagt gaaccaattt 360
 ttggatcgga ccataacaac gtgtctcaat cctctgactc t 401

<210> 9842
 <211> 440
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-011-Q1-E1-G3
 <400> 9842

ggtccgagat tcacgggtcg acttccacca aagcgatata catcatctca tcgaaagatc 60
 gggaccctcg cctctatcaa gtggtatcag atttccaggt tgctcgggtga gattttacag 120
 tttttcgtag tttagatcga gtctgttctt catacctata gtccacgaaa aagccaaaaa 180
 aaattagggg tagttcatcc catccgaacc aatctgagcc ttgcataatc ttttctgtat 240
 ttgctttgtt gaatttgagg ttgcatcgtc gtgttcagtt gctgggtctta gcgtctagtc 300
 ttttagagtt tcgagttctg ttcacaagtt gtcacgccgt cgccgcacca tcatcatcgc 360
 nctgcccac taccaacacc gctccgaatc cgtatccata tnacaccacc aatccgctgt 420
 catataccaa caacatatat 440

<210> 9843
 <211> 458
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-G4

<400> 9843

ttcacgggtc gactcccaca gaaaacgata gccaccatct catcgaaaca tcgggacacc 60
ttttgcctct atcaagtggc atcagatttc caggttgctc ggtgtgattt tacagttttt 120
cgtagtttag atcgagtctg ttcttcatac ctatagtcca cgaaaaagcc aaaaaaatt 180
agggttagtt catcttatcc gaaccaatct gagcatttgc ataataatttt ctgtatttgc 240
tttattgaat ttgcggttgc atcgtcatgt caagttgatg gtcctagcgt ctagtacctt 300
agagtttcga gatctgttca caagttgtca cgccgccgcc gcaccatcgt catcacccgt 360
gccatatacc accattgtca tcaccgctgc catataccac catcatcatc aacgctgtca 420
tataccacca tcgtcatcat cgctgccata taccacca 458

<210> 9844

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-G6

<400> 9844

taccagtcca gaattcccgg gtcgaccaag gagacgccgt tcaggtacat ggagtggtcg 60
atagcgatcc caatagtggc gtacgatatg tatcacgcgg tgcacaaac atttgaaact 120
gtggcacttt cgcagtggc aagagcgggg tacgtgttaa tggatccact tctcgtcgtc 180
gtctcgctta acggtgttac gttaccgcgc aagaagattg tcggtcacc atgactacat 240
cacatctgtg acgcccacta tatcagtcac ggaaatggac atctctatga gtcgaattat 300
ggtatcgtca ctgggaactt ccaggacagc acacgtataa ctatcttgca tcagacatac 360
catcctcaag catgtatatg catgacaagg cctgcaa 397

<210> 9845

<211> 370

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-G7

<400> 9845

taccagtcca aaattcccgg gtccacaaag cgggactatc gcgcgtccgc ctcgagagca 60
tcaggaccgc ttactgtttg ccagcacat cctagaattt gcgaacggca acaccattca 120
catggtcgta gactcaactc atcgaggcgg tgaacaaagt tggatagatg tgtgacatct 180
caaactacac catcgacttg ctgcattcag gcgacgggca cgtaaatgac tacggcaagc 240
cagggcataa gtatagcggc agcatgtgga tgagattgat ctgtacctag tgttgacgca 300
agctgcagct ccagtgtgat aagtatagct gcattctgat caagccgtac cacactgagc 360
agatgcacat 370

<210> 9846
<211> 473
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-011-Q1-E1-H1
<400> 9846

ggtacgcctg cggtagcggg ccgaaattca cgggtcgacc gtatatgtca attctgtatt 60
ggttctaggc aagtaggttg acatgttcat ctgttatcat gagtgcctg tttacacttg 120
cagttcagat attacgctta agctaaaggt ctgattgtac tgtctagagg tggaatggct 180
aagctctctt tatggctcctt tttgttgaat atcttgcaaa tggcacacta aagtgcagga 240
aattattagg tgtgtgggta tcaatccagt atgttcttat gtctatggat ccgggaaatg 300
ttcacgcttt attgggtttg gtcaacaaaa ttttaggtgt acatgctttc atcttgaata 360
tatgtaattc ttaagtaata ctacttctcg gttaattcat tgaagtaatg atacaatcaa 420
ttggacgctt ctctacagtt atgcatctag cgggaaaatt gttgttttca cat 473

<210> 9847
<211> 483
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-011-Q1-E1-H2
<400> 9847

acgcctgccc gtagcgggtc gaaattcacg ggtcgactgc ggtctccact ccggtggatg 60

gtgggttcggg cggtggtgga tctcgccggg gagggctgca atcggtcaa at tgaggctcgg 120
 gtttagaggag tgggtgtact angaggcgac tggcacggtc tgggaggcgg ggggtggtctc 180
 accagaggga atcggtgccg agcccgaagc ggatcggggc ggctcggagtc ggggaagaag 240
 gcctcctcga ggtttcccta gtagctaggc gtggctctgg tgagatgtan gagtgggtgct 300
 gggtcgaagg cgagctcgag gccccttttt atagccggtc cgaggcgggtt gccgagaacg 360
 ggataactcc ggcgatgatt acggtgaggc agtggtcgaa caagggttta agggtcgggg 420
 cagctgcgga ttggatcact agcttcaacc cgttgctaaa cttgggcaga cttgggcgat 480
 act 483

<210> 9848
 <211> 457
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-011-Q1-E1-H4
 <400> 9848

tccgagattc acgggtcgac ttgttcaaga ggacgggtatt ctttgtgtcg atcgggagca 60
 acgacttcat ccactactac ctgcgcaatg tgtcaggcgt gcagatgcat tacctcccat 120
 gggagttcaa tcagctcctt gttaatgcag tgaggcagga aatcaagaat ctgtacaata 180
 tcaacgtccg aaaggctcgt ctgatgggcc ttctcctgt tggtgtgcc cctcacttcc 240
 tctcagacta cggcagccaa aatggggaat gcatcgacta catcaacaac gtcgtgatcg 300
 agttcaacta tgggctgaga tacatgtcca gcgagtcat ccgccagtac ccagactcga 360
 tgatcagcta ctgtgataca tttgaggggt cagtggacat actagagaac cgttgacgct 420
 atggctttct gaccaccact gatgcttgct gtgggct 457

<210> 9849
 <211> 472
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-011-Q1-E1-H6
 <400> 9849

cctgcagtac aggtcggaat tcncgggtcg acaggatttg gtcatttgca tggtagtca 60

tgaaatccta cataaaactt gtggatcact gaatatgata tgtttgattc cttgcaatag 120
 ttttgcgata tagagatgat aatatgtggg aagtactagt aaaaagttgt agttagtaag 180
 aatattggtg taaagggtttc tgattcccga agcatgcacg tatagtctct agttatgcta 240
 tgaagttgga gcatgattta ttattgattg tctccttatg attggcggtc ggggacgagc 300
 gacggctctt tcctaccaat atatccccct aggggcatgc gtagtagtac tttgcttcaa 360
 ggtctaataa acttttgcaa taagtatatg agttctttat aactaatgtg agtccatgga 420
 ttatacgcac tcctaccttt ccgcaatttg ctagcctcta cggtagcgtg ca 472

<210> 9850
 <211> 424
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-011-Q1-E1-H7
 <400> 9850

tacagtccga aattcncggg tcgaccacgt cttccagacc aacatgctcg acatgctcaa 60
 gcagaccggc gggccagaaa tggtagtagg gtggtatcac tctcctctg gttttggttg 120
 ctggctatcg ggtgttgaca tcaatactca acagagtttc gaagctttga accccagggc 180
 agttgccgtc gtgatcgacc ccatccagag tgtcaagggg aaggtgggtca tcgatgcatt 240
 tcgtctcatt aaccctcaga ccatgatgct tgggcaggag ccacgtcaga caacatccaa 300
 tgttgggcac ctgaataagc catctattca ggctcttatt catggggtca atagacacta 360
 ctactctatt gcaatanatt accgncaaaa tgagctcgag gagaagatgc tgcttaaact 420
 tcac 424

<210> 9851
 <211> 332
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-012-Q1-E1-A1
 <400> 9851

gggtcgacgc cttagagctct aaacctacga catgacatgg agcattgcac tcggtggagt 60

tcaaggtctg agatgacagc tgaggctgat ataaacaagt ggactttgta aacatgaaac 120
 tgctactttt cttgcccatt cttgttctgc gtatagcagc taaaaatggg gatgggatgc 180
 accttctttg gtgcttatca agaaaactca tcatggttgc acaacaggat ggagccaaag 240
 gaaaatcaac cgccaggttt gatttgcac actacttgct gctgaaaagc tcatccttga 300
 tggcaaatgg attctgagga ttctggttgt tt 332

<210> 9852
 <211> 460
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-012-Q1-E1-A2
 <400> 9852

cagggtccgag actcacgggt cgacaacctc cacaattcag acattccagg tgaaccaagc 60
 ccaaaagcag aggcgccgta cataccgtgc tcacggacgc atcaatcctt acatgtccaa 120
 ccctgccac attgagctga tcttgtcaga gaaggaagag cctgtgaaga aggaggctga 180
 taacgtcgtc gcaccaagga aagctatcta agccaccgga atggatgcat tcgtccaaca 240
 gtcttagttg tagttcttct caagtacctt tggtggcagt gtttgttgcc tccttgatgt 300
 ttttgttacc aacattgagt aaggatttgt taaggttgat gctatccttg tgattgagcag 360
 tggctctttat atgctaaaac agtttcagat atttgagcat tagcacacca gaacttattt 420
 ctctaaaaaa gaatgtcggt aaagaagaaa aaagcgggag 460

<210> 9853
 <211> 477
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-012-Q1-E1-A3
 <400> 9853

cgctgccgg taccggctgc aaattcccgg gtacgacatc gagccagatg cgcattgtcaa 60
 gcaggcgatg aatgagatta atgcagctgc aaggatgagg gtggctgcaa acgagaaggc 120
 ggaggctgag aagattgtcc agatcaagcg tgccgagggg gaagcagagg ccaagtacct 180
 gtctggcctg ggtatcgccc gccagcgcca ggccattgtg gatggcctga gggacagcgt 240

cctgggcttc tcagtcaatg tgcctggcac cactgcaaag gacgtgatgg acatggtgct 300
gatcaccag tactttgaca ctatgaaaga ggttggcgcg tcctccaagt cctcggcggt 360
gttcatcccc catggccctg gcgcggtgcg cgacatcgcc acgcagatcc ggcacggtct 420
tcttcaaggc cagtctgcct ctgacaacta agcactttgc ttcgccggca tgaactt 477

<210> 9854

<211> 482

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-A4

<400> 9854

cgctgccgg taccggtccg aaattcgcg gtcgactttg acgatcagac tacgaacgtg 60
caaggacatc ggcgcttagc aatcactaaa ccaacttcga gaggttattg accatgccgg 120
agcacgatca acctgaccac gaagggtctat ttcctgcaag caaacgaaga acaagcaaga 180
aactaagatg gcaatctgga tattgccaat ataagaggaa agctttatta atgaagggtg 240
ggttctgtga cgcctttgtc tggtcgttga acacaaacga agtacacgaa gttgcagcta 300
tggcgaactt tttatctaaa caaatcccaa agtctaaacg acgccctaag gttgtatat 360
atggaggaag aggggggaat ttcgtggccc ttggggaagg ggtccgaaac caaccctatc 420
tcttatttcc cacacttacg gactctaaaa acaacctata cttatgtatt tcgaaattac 480
at 482

<210> 9855

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-A7

<400> 9855

ggtccagaac tcgcggtcg acgtcgggga agtagtcgtc gttggggaag tagtcgtcgg 60
agtccggggc gtccgtgatg aaggagtcag tagtcgcgca gagcgctccc caaaaacctt 120
atcacccctc tcctgtaccg gacggaaaga ggtgcgggtc cggaggccta ctgtcccgac 180
ctgtggtgca cgccgcaagc cgggatgcga aagatcgtag cagcagcgca gtgctcagga 240

accggtggcg agaggaggag gtagttctgg tgcgtctctc tgagaggagc gacctccctt 300
 ttataggcgc aagacaagga ggcgagaggc tgcgccggga gccaaggaa acacgggaga 360
 agagtgacct ttcataagacc cgtagtgcgt tgaagaaatt tagacatcgg ttcgttccca 420
 caggcaagcg gcggaagacg aacgcgccgt gg 452

<210> 9856
 <211> 167
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-012-Q1-E1-B3
 <400> 9856

cgctgccgg taccggtccc aaattcccgg gtcgacattg ccatttgcag ccagccatgt 60
 ttttcaaata cataggaata ctctcaatcc atcggatatc cacgccgcag ccgaacttgg 120
 ctgtctcctg tggggggcat caacagatcc ctcacagggtg tctttcc 167

<210> 9857
 <211> 471
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-012-Q1-E1-C3
 <400> 9857

taccggtccg aaattcccgg gacgacggct tggtgtggcg gcaatagtgg ccgttcagtg 60
 gtcttggaat tttgatataa cttttattgt gtttgagatg ttttgtcttt cgggagaact 120
 ttttatcatt ttcaaaacaa aacaaaagaa cagacttgaa aatttcttgt aaaaaatagc 180
 cacttcacat gaaacttgca tggccttctg gcacatatgt gaccatttca ttccagttga 240
 gcttatgggc taggggaggg aacagagagc tcttattgga tgcccccggtg cgtaacgcta 300
 gatagcaaca aatccatatt ataagtgtcg tgccttgata agagccctgt atggacaatg 360
 gacatttttg taatatatgc tgaccaatct ttaactacac actgaatatt tttgtgatat 420
 gcaatgaata atatttaaata acacattgaa catttctgtg atatacgctg a 471

<210> 9858
 <211> 417
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-D4

<400> 9858

cgccctgcccg taccgggtccg agattcacgg gacgacctcc gtgacgtgac tcacatgctg 60
tgtagcacca ttcgacgggc cgaccacaca ctgtcaggca caattcacta tgacacgaca 120
tggtatctca aggatccgcc tgccagtgag aaacccgcat gtttgcacgc gcgatagcac 180
tgtttccgag atccgttggg gcctcatctg ggcacgcatg ttacgtccag tggcatagat 240
aacgtcaact agccgcagtg aacggggaac gcgggaatgt ttgtccgctt cataatgcc a 300
gctacactga ccgtaaacgc gacatcatga ctcatcagc cagtcacgca gattgatttc 360
ccggacaatt tcattgtgca gtactaaacg ccaactgact tttatgacac aatataa 417

<210> 9859

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-D5

<400> 9859

cagggtccaga actcccgggt cgacaggcca cgtgaacatc aactgaccc aggccggcac 60
cgttggattc ctctgcttt aaaaaaacac ctataatttt attcatgctc gtaacaatta 120
cagggtacatt gatttgcac taaaatcgaa gaagacataa agtaattcct ctgactaaga 180
attataacga agacttgaa acagcttctg ctagaaaaat atatttcaa gagttccgta 240
aataggctgc aattgactgg agcaacgatg ttgtcactca ttcacatgct atagtaccag 300
ccaagttttt ttacaaccg gtttgtaaca ttgaggtctg ctacattacg tgtggttggt 360
gatctggtgc tttggtcttt tggggactta gcacgatgat tctccgattg tctaatagaa 420
taagttgtcc ccggctccgg caaaggaag 449

<210> 9860

<211> 467

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-012-Q1-E1-E4

<400> 9860

cgectgcccc taccggtgcg aaattcncgg gacgacgagt gactagccac ctaggtgggtg 60
atcctggcca tggagggccc tatgtagata gacaggcttc gagaagcctt ctttctttct 120
agtgtctgta ctcagactag ttgcttcgcg ttgtgcttgt atgattgtat ggcttgagtg 180
tcgggtcttg tgaccctat ctgtatgaac atgttatgta tggctctctg gagcctttaa 240
ataaagtact tgagttgtag agttttgttg tgattccatg ttgtatgtac tcacatcggg 300
catagttgtt tacccttggc agcctttctt atggggaaat gtagtctagt gttcctcgag 360
ccatagtagt ccgctacaac ccggttcacc ggagtcctgc ttgcctagca ctactgctaa 420
ggacacttga ctggccggca tgtgtttcac gtcactccta tgtctgt 467

<210> 9861

<211> 485

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-F1

<400> 9861

ggtacgcctg ccggtaccgg tccgaaattc ccgggtcgac acatctttaa aatgacatgt 60
caaacttagt ttttgaggct atgttgcat tgtagttctt gctctgttaa atttgaggct 120
acgttgcat ttagtttctt gctttgttaa atctgagatt gatgaaaatg gtatatagaa 180
tgcaaaaaaa attgtagcca cataatgatg ttgtatggta ccccgagcaa gtaatatgct 240
tgaatcaatg tgacttttcc tgattataat tatcttatag tatcgtgatg ttggcaggta 300
tatgcgagtc cggcagggcg gtggcgatcc tttgcaagca cgaatggagc gaagacttgc 360
tgtgggctga gctgctgtct ggtcaaggaa gaaagttgat gtctttactg gcgaaacaaa 420
ttgctgcggc agcaatgctt gtgagcttat gatgtgctc tagtttagtt tgtcggtttc 480
tgtga 485

<210> 9862

<211> 479

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-F2

<400> 9862

acgcctgccg gtaccggtcg caaattcccc ggctcgacaaa ctccttgctc cccatcgaca 60
gaacaacaag gtccaacccat acctcattgt atatattttt caacacatgt atgttttttt 120
aattcacaat tgacattttt cttatatattg tgcaacatct ttttgataga tgttgaacat 180
ttttgaaaca ctatttcctc ctccaagatt cttgctttcc ttctacaggc tcacgtatga 240
aaaatgtgtg cttatagag ggctaggcca gaaatacata gcatagataa caagggtttc 300
gccaaagtag acgtacaagc gaaacattcc acttatcgaa gaaggtaggt atttcaagtt 360
caagaagtag gcatcgatcc caaagaatgt agtgaaaatc tagactagga ggaatgcac 420
aaagccaagg tcaagcaaaa ggttggttga tcgttacgtt ggtcggaagt tatttcctt 479

<210> 9863

<211> 481

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-F3

<400> 9863

cgctgccgg ctaccggtgc agaattcccc ggacgacctc gtcggtttcc ttgttgggtc 60
tcacactcac tctcaccgg ctgggtccgt aagtgaggtc gtggcccacg tgctagtgtc 120
accaccgttg gggctgatcg atccgtccaa atccaaaacg ctagecggaca gcgctaccgt 180
ccaccgccgc agatcaaatac tgtgctagga aaatgcctgc cccatctatg tgggtcggtc 240
gccggggcgtg gctgacagcc ccaccaataa tgcattccga acttgattag actgcacaac 300
gagtgagcag atactctcca aattcttgaa ttccaggag ctggtggatt gccaaacaac 360
ccctgagatt caagctatct aatcaagctc tctcgttaa acaagtctgg cggatcatca 420
cggccccgaa ctcgctatgt gctagagctc taaaggcacg gcatttcccc ggaaaagata 480
t 481

<210> 9864

<211> 470

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-012-Q1-E1-F4

<400> 9864

acgcctgccg gtaccgggtcc gaaattcncg ggacgaccat gcagaggtct gttctcccg 60
aatatccacc ctttactctt tcgtaagtac gatggagttc ccgaagaaag gatgctgact 120
tcatcatgat gacctgaaac agagaaatga agacatcaac gtaatggatc gacctcttta 180
agaagggcaa ccaagactga gaagacctgt tagaatttcg taacaaaatc ccttccccctt 240
actccccctc taaatctcgg gacgagattt cttgtagtgg aggagaattg tgacgcccta 300
ataattaagc tacagtaaac ctttggttaat gatgccacgt cacctcgggtt acagttgcta 360
atctcacgtt agttcaaagt ttgactcata ttcaaatttg aattatagcc aaacagtaaa 420
ggttttcaaa tattaaaact aaaatgttcg gggtgtgcc aataatgcat 470

<210> 9865

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-G2

<400> 9865

acgcctgcag gtaccgggtcg caaattcccg ggacgacatg aagatggaac atgatgcaca 60
gttgctcttg gccaggacca gggcgctgac tgggcaaagg agacgaggaa ctctcaaga 120
attaattggt catcgcttag tctccatgtc aacagcatgg cgcttcctcg aaggaaacgt 180
cacccgatga atgatctgct ttggtgactt ttggtcgaag acgtgagata gaattataga 240
aatagaatgg atgttttcac aggcaaaggc atggcactca gtcgatacgg tatggatgca 300
acattttctt tttgagaatt tagtagagta gattattatt ttcttgatta taaaaatat 360
taggttgttt tgtctcggtg gacgctgatg tggaaaaact gaattactac actgccaac 420
gagaaggaag tgggtggaata taccggcgaa cgggcg 456

<210> 9866

<211> 475

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-012-Q1-E1-G3

<400> 9866

ggtagcctg ccggtaccgg tcogaaattc ccgggtcgac atacttcgcg aatggcagca 60
gtattcacat ctagcagcat ggcagcagac cagttttttt tcttttcctg catgtgtttt 120
tcttttcttt tttattttct ttagtatgga tctatctctc tgatcaagca agaagagatc 180
ggcagctcca gcgacatgac gagccgtttc cgggttttta tgaagggaac tatttgggggt 240
cgcgcggaag caaaactagc tagggtttat tagtgctgct ctagttccgc ttgctattcc 300
tttcgcttgt tcgtttgttt cttaaggat tttattatca aggttgtaag gctggggatg 360
tgcagctagc ttcagattca agcctgccgt ctgcctgct tgtacattgt aaaacagaac 420
cgctgctctc cagtgactga atgattataa gcagctactg tantgggtatt tgggg 475

<210> 9867

<211> 461

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-G4

<400> 9867

actcgtggga cgacgtcata cactatagtg agtcgtatta agaagattcg ttaggatttc 60
gtaaccaa at cccttcccc ttactccgc tcctaaatct cgggacgaga tttctttag 120
tggaggagaa ttgtgacgcc cgggtaatta agctacattg accctctgct aatgacgcca 180
cgtcacctcg tttatagttg ctaatctcga gttagttcga aaccaattca aattcaaatt 240
aagaaaaata ggcaacaat aaaagctttc aaatattaaa actaaaatgt tcggagtga 300
ccaaatattg catagataat tatgggggaa aaaccacaca tgcataaaat gtttaataa 360
tatgagatgg gtaaaacagc agcaaaacaa ttatttttaa tgttttttaa tactaaacaa 420
atgttaatct agtttatata atcaccaaac ttttttagagt a 461

<210> 9868

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-G6

<400> 9868

cgctgcccag taccgggtcca gcattcccgg gtcgacatgt gtcacggaat gcactctctc 60
aatgaaatca gtggctctgt tgtegtggg ttccattatc catccatagc aggtgccttg 120
gctgacgaca acatgcttgg catctgcttt gatgtctgtg atgtcgttct gtaaattgat 180
tctaatacaga tgggtggcgg ttaggtcatc ccaacagtca tcacggacat ttatccttct 240
cagctcactg ctaagcccac gttgctgcat cctgtatacc tgctgatat acaagcacca 300
gataatgcac ttggcggtag ctaagggtgtt cttaatacata agataagagc acatgtttga 360
cgacatgcat atagctgtta ccccgctgta caacatcgac gcttacctcc cgggtca 416

<210> 9869

<211> 473

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-H2

<400> 9869

cgctgcccgg taccgggtccg aaattcacgg gacgactctt aggcgatgct cagccagtca 60
cctgggaaca cctggcatgc cagcgggctt ccatgcaaaa atgtcccagt tctcacggag 120
gaactggatg agegcttctt cctatcttgg gtcgagtgtc acagccccag atcagccctt 180
gtttgttttt gcttttagcat ccatgcaaca tgtttaaatt ttatgaaatt tgaaatgggg 240
attgctcaaa ccctagcatt aaaggaattc actaggttca cctaaaatac tttcaagtaa 300
gtccaaatgg ctttcaaaaa tgttcatgat ttttgacaaa ggtgaaaaac ctctaccaa 360
aatgatgcca atatttttgg gccattatgg atttttgaat aatccatatt gtatttgtat 420
tggggcatth aaatactatt aatattttta aatgctccaa cagttctgaa aat 473

<210> 9870

<211> 450

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-H4

<400> 9870

gggacgacga ccaactggtca actgatccat aagcttggag gcattgacaa gcgtgtgatc 60
gagaggttcg agaaggaagc cgctgaaatg aacaagaggt ctttcaagta cgctgggtg 120

cttgacaagc tcaaggccga gcgtagagagg ggtatcacca tcgatattgc cctctggaag 180
 ttcgagacca ccaagtacta ctgcaccgtc attgatgccc ctggtcaccg tgacttcac 240
 aagaacatga tcaccggtac ctcccaggct gactgtgctg ttctcatcat cgactccacc 300
 actggtgggtt ttgaggctgg tatctccaag gatggccaga cacgtgagca cgctctcctt 360
 gctttcactc ttggagtga gacagatgac tgctgctgca acaagatgga cgccgccact 420
 cccaagtact caaaggcgcg ttacgaagaa 450

<210> 9871

<211> 462

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-H8

<400> 9871

cgctgccag taccggtcca gcattcccgg gtcgacacag gaggttttag tattccctgc 60
 atgattacca taacagatat atttcaagca atgaacataa tcaccactca ccatacctca 120
 tcatgccata ccggacacaa ccatctcgac ggaggactag agacaagccc gtgtctaccc 180
 aagacagagg ctttcccga ttccttccgg tatgcatgaa aggcatacga tggtgattac 240
 tatcccaacg tatcaaattc caatagcacg gaatcatcaa tatgactta tgagtatgtt 300
 catatcatcg cataaaataa tggaaactcc gagacgatgg gtgttgtaac cgtatcaaac 360
 aacacacgac aatattatgc cagggttcag aatgcttgcc ttcaagttgt ggagaggcaa 420
 ggtgcattcc agaacttttg aaagttttct cctctcccca aa 462

<210> 9872

<211> 379

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-A7

<400> 9872

gtcgacaggg ctgctcaagc ggcagagcag tccagcagcc gcagcggacg actgaacgtg 60
 tcgcacccca ccgcaccata caactataat aattcttcca cttcatgagc cattggacta 120
 ctgggaaata tgtttagata ataagcaagc ctttagatga gaaggcagat cataatagct 180

gagcaatagt atctttttttt ttcctttcaa actagcacct tttgtaaccc cacaacccat 240
 agcattgagc aagcacaacc aatcattggt tgctctatct gattattact aacccaaata 300
 ctagctatag taatgatggc taatggtgca tctccagatt tcttcaaaat agctctcgct 360
 acttacgcca tttttcatg 379

<210> 9873
 <211> 467
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-013-Q1-E1-A8
 <400> 9873

taccgatcca gaattcgcg gtcgacgcca acttatgaca ccttagtggc cgtaaacaac 60
 cacatgtgtt tatcaatttt ttagttgtga ccaaactttt cgtcctcact tggattgttg 120
 ccaacctttt agcatgtcgg tggctcctac caattatagt ttatttgtgt agggaaaatt 180
 ggccaactct tggagtacat aaaacattga tccaaatttt ggctacccaa aattttggtg 240
 gtgcaacctt gggctcaaat caaacgcacc ttgaatttct cacgcaacc aggtgggacc 300
 tttgggaccg cttggatttg atcaccggat gcaagacaag atgaatacca ccggaatcta 360
 atatagagt gctgagtggg ttttttatgt agactacang cattgagtgc tcacgctcta 420
 tgatttcagt ggatataaca acanaaattg aagtagacga tgcaact 467

<210> 9874
 <211> 436
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-013-Q1-E1-B7
 <400> 9874

aattcgcggg tcgactttct ctgtaaatat cactctccgc agatacttat acacctgtgt 60
 acacgcattg acgcattatt cgcttaaccc ataactcttc agcaggctat cgtcactatg 120
 gggcacgaca tgcattaca ctgcgccctt ttgtggcgat tgttgactct atacgttaag 180
 tttgcaccgg ggattaacat agcacgtgta gataatgata ttgacgaatt tgattgcaag 240

atatagaaca tctcccccg aagatgtgca tactgacgaa ttgctttta attcatggca 300
tacttgaaga cttcaatcat ggtcattacc ttctatatct tgtgattcat acacgcattt 360
aacatatgat atgacgaatt tgaaatgcat gattgacata tggtgactga tgtaattcag 420
catacgtgca taacca 436

<210> 9875
<211> 384
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-013-Q1-E1-C10
<400> 9875

tacggtcctg acattcacgg ggtcacatcg gcaggaacat catccatgga aacgactcac 60
ttgacagtgc caggatcgag atcgccctgt ggttcctga aggcattgcc gagtggatga 120
gcggacagca caactggatc tattatgccg agcatgtgtc atgagtgtt gagtgcaggt 180
ttcattaagc atctaccaac ctagccttg gttgtttaca gttttgagat atgtatcttg 240
ggaaccatgt ttgtgtgcac tgaagttatc tccttgtgca tgggcaccca agcggtagct 300
gctgctctat atttgataca tgggtactgt ttgcctaca ctgcacggaa aacattgcat 360
gcagcggccg ctctaaagga tcca 384

<210> 9876
<211> 446
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-013-Q1-E1-D12
<400> 9876

taccggtcctg acgattcacg ggtgcacaca ccacaaccaa gccgcagta ggagagattc 60
acgcaggggc ctggagccat cgcaacagaa acctagaaaa ggttaaaaat aaagagaggc 120
tagagaaagg agaggagttg cggctagagg agaaatgaac tgcaaaggaa gggtagaagt 180
tggcctaaat ttataggagg gaatgccaaa aggtcaaaac tgaaaattaa agaggagtta 240
atgaaaatta cgttaccaag aatgaaggac aatcaataaa agtttatgtt accaaaacaa 300
aaaagtctta ccaggaagtt ctacaacgac ttgactgca caaattcatg acgaatttgt 360

acacctgaag cacaagacca tgacgaatgc agtgcataga cgcaacaaag tagtgcatac 420
ccctaccaat gcagtgcaca aaaatg 446

<210> 9877
<211> 442
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-D9

<400> 9877

taccggtccg tagattcacg ggtgcacatt tgtgaagacg atctcaaacc ctgtggcagg 60
aggcaagaac gcttggtttg cgaagtttta ggaggcttgc aggaaggatg tcgagcgggc 120
atttggtgtg ctccaatctc gatttgctgt tgttcggtac cccgctcaga cctgggtccaa 180
agatcaaata tgggagatta tgacttgctg tgtcgtcttg cacaacatga tcatcgagag 240
cgagcaaaaa gaccagtggt ttgacactga accatactac aggcagggtc ctctagccga 300
agttgatcac cagctaccgg caacttggac tgcctatctc agtatgcgtc aggagatccg 360
agaccacag gtgcatcatc aactgcagaa agatctgatt gagcacctat ggaggtcaa 420
gggggacgcc gtgtgaatga at 442

<210> 9878
<211> 438
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-F8

<400> 9878

cgacggcggc aaggaacatc tccggtgctc cgccccgtcc caatcgatct tccaggcagg 60
ctcagcctcc aagcgccctc cgacgccgca ctgcacctca tcgaccagga ccctggtcgc 120
ggcgctcacg gtctctctct ccctggtggc cgcggaogcc aactcgtgca tctgcccagg 180
aatccatgag gcaccacctg gccgtctctg tggcggatta cgacagattt gcgaccaagc 240
tcaagacccc cggcacagac ttgttcgcca agacgcaacc cgatggccgc gcgcgccaag 300
tggtcttctc cgaccgggac gcatttgtaa tggagtgggtg ttccatgatg taagggcgtg 360
ctctgataga aacatgacat gacagtagaa gtagatttga caactggatg cccaaggctt 420

aaataggaac tgagatga

438

<210> 9879

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-H1

<400> 9879

ccactcccta aagtgactcg tattataagt tcataagaac ggagtaacgc attaagcaag 60

ataacatgat gtagagggat aaactcaagc aacatgatat aaaccccata tttttatcct 120

cgatggcaac aatacaatac gtgccttgct gcccctgctg tcactgggaa aggacaccgc 180

aagattgaac ccaaagctaa gcacttatcc cattgcaaga aagatcaatc tagtaggcca 240

aactgaacca ataattcgaa gagacttgca aagatatcaa atcatgcata taagaattca 300

gagaagaaca gatattattc atagataaac tttatcataa acccacaatt catccgattt 360

cgacaaacac accac 375

<210> 9880

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-H10

<400> 9880

taccggtccg agattcacgg gtccacggtt tcttgattag cgaggcgatg cgcgacgagc 60

gcggcctgga ggtgcacatt cttcgtcgtg acctccggca cctgcagggc cactagggct 120

tgaaagagtt cgtcaccatg gaggccgatc aggggtggcag gcaatgagga gcctgggagc 180

gcgggctgga gcagtatggc aaggatcatc gcgcgcttct tgacgtcggg gaacttgagg 240

atggagtgga ccatcatgtc gtccatgcga gaggcgaagc cggcggtggc gagggctacg 300

acgccggcgg tcgccagcac cttttgaaa cgctgcatgg tgtggggccg caggccggcg 360

tcttgatta tctggcacag ccgactgccg ctcacgtcca tcgccccaa aggtgc 416

<210> 9881

<211> 358

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-A10

<400> 9881

ctcgttgtac ctcgcaacac cctatagtga gtcgtattac tgatccctct gactaactgc 60
atTTTTgagc aacattttca cctctctgta gcgagagacg gccactcca cttacgccgg 120
tggcacgggc agtttgccgt tctgtgtact gtctctggat caattctaaa ttccaccgaa 180
gacatacact cgttctgccg agtctgaccc ctgccatcac aactcatcgt acatccgact 240
tgtgtaagca atataagtat cgctgcttaa cttcaatgcc cgaagcaacc gttcatatct 300
acaccgtgta gaaatttcac gggtgcaatt tgtgcctctt cgagttactg tctctggt 358

<210> 9882

<211> 296

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-D11

<400> 9882

tatcggacct gaattcgcg gtcgaccctc ggcaggatag ttggaaccaa atgccacgtt 60
cataccctaa tatctttaac actaatcga gcattgccgc acataaagta ttaacagtac 120
caataccagt cagagttaaa atcattttac acctgaccat attgtgcgtc tggtagacca 180
tctttagaaa gaacagctcc cactccttct cttgcagcac gtccctcaat tagtactggt 240
acaacaacca cttggacgcc tgctgcatca agttcttggt ggtgatcagt accata 296

<210> 9883

<211> 465

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-E10

<400> 9883

taccggtacc gtaaattccc gggtcgaccg gcaccactcg gatgtccgac agctgtgcag 60
atttcctcgt cattcctcag tagtcatccc atctctcgga cgtccaggat tcttcaatcg 120
tccattacct gactcatctg gtgcactcat cagctcccg gacgtccagca tctgtcggtc 180

atcaggtaaa atccacgacc catataaaac agggaagggg attgaccggg ctggtaccct 240
 aaactttccc ctctgaccca tccctttcct ctgtccgctg ccgcaccgct gtcgtggagc 300
 ctctgtgtcg gtggagtctg gcgctaccgg acagatgctc tgccgatcct ccttcacctt 360
 gatctggctc ggtgtggcta accaaaccac gtcgacattc aagcatgccg ctcacaaaag 420
 tatcgacggc tcatcggtc acgcgtctca ttgcgggtggc tcgga 465

<210> 9884
 <211> 448
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-014-Q1-E1-E11

<400> 9884

gtaccgggtcc gaaattcccg ggtcgactat ctccatgaag tccgtgattt cttcctcatg 60
 gccaaaggaag tctgcgctg cttctcctc cagttccagt tcgcggaaca aaagcttccg 120
 gtgtgtcttc gagttacggc gagtctgaat ctctcgtttc ctgagaagac actccaagtc 180
 ctggatgtac gagagagtgg aatcgctctc aatggtagcg atgatattc cattccttgc 240
 cctgcgagaa accatggcga ggtctgagtg atcgagctcg gccctgtact cctctcggag 300
 atgtccaagt gctcgataga tcgccacgtc cttccgatg atccagttga actcggtgaa 360
 ctcaaagttg ataggctccg tgtgtcctcc aaaggttctc cctgggatat gcacttcaat 420
 cctgtancgg gtgtccgtcg gaagtgca 448

<210> 9885
 <211> 440
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-E12

<400> 9885

gtaccggacc gaaattcccg ggtcgacttc tgctattctc cctcgtcattg tttgagatag 60
 cgccagccag aacagggaca tgactggatt attttgctc agcaggtcct aaactcttca 120
 ttctgaaaca gtgcaagatc aactgcatct tatctgatag tagcaggtta cggaatata 180
 tacatggaat tgacctgaaa ctttcagga cagtgtacgg tgggtccttg ggtgtctcta 240

ccatgttcct agtcaatagt tgcaaagatc gtgtggaagc tagagaagat ctcgaagctc 300
 gtcgatcagc cccacacag gaggcagcgg ggctttttcc cttctcccat aggacgaaaa 360
 gcggttcttc ttctctgaaa aagagagaca aacctaggcc ctgaaggatc gcatcccgat 420
 ctagccttgt cgctccgcg 440

<210> 9886
 <211> 435
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-014-Q1-E1-F11
 <400> 9886

gtaccggtac gtacattccc gggccactg gaaaactagc aaatcgcatc ttgtcaggtg 60
 aatttgatat aggaaaagtt tcttaaaagc atgcaaaaat atcatagaat ggtgatcttt 120
 ttttttaaaa ccctccgttc tagtcatttt caatcatggc agtacaacag acaccataaa 180
 tacgtattac atccagatcc gtagaccatc tagcgacgat tacaagcact gaagcgagcc 240
 gaaggcgcg cgtcgtcatc gccctccat cgccggagtc gggcacaatt tgtagtcctg 300
 gacagttggg aagtcgctgt gttacgacac catagagaca gcgcattaca agagcatctg 360
 ccgccgatga gcaatggcag gccgatctac ctcgaagaca cattcagctc gacgagacac 420
 gaccatcaga gctac 435

<210> 9887
 <211> 196
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-014-Q1-E1-F12
 <400> 9887

ccacgcgtcc gaaagaagtt agtcgccttt gctgtcactc agagatcggt atcattacca 60
 tctattcgtg attccataga tacgccttcg cagactgtac tgggtgtgatt ccatcgtgca 120
 catggcagac cattttctag gctgcaattt cagcaacctc agcagaattg aatcaaattc 180
 attctttata atggct 196

<210> 9888
 <211> 379
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-014-Q1-E1-H11

<400> 9888

acaacaccct atagtgagtc gtattaatca ncagatgaga aatctttgcc tcaagcatct 60
 gacaccacac tctcaggttg gatactgcca tatcaaagtt cttcatcatt atgactcaat 120
 tcgggtcctg tatactatat ttcatccaa tccagattct tccataaagg ttcgtacatt 180
 ctaccatac tgacctctgc cgtagccact cactcatatc cgtttgcttc actcactcta 240
 cgtctctctc gataccgtca attcccagat caaagggtcc tacttacagc tgggtgaaaa 300
 ttcccgggct caatttgta ctcttccagt ttctctccct ctgcagtctg cactgcctgc 360
 aactgacttt attgctcac 379

<210> 9889
 <211> 471
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-A1

<400> 9889

cgctgcagt accgcgtcca gaattccagg gtcgacttcc accaaagaga aatccaccat 60
 ctcatcgaaa gacgggacac cttagcctct atcaagtggc atcagatttc caggttgctc 120
 ggtgagattt tacagttttt cgtagtttag atcgagtctg ttcttcatac ctacagtcca 180
 cgaaaagcc acaaaacaaa attaggggta gttcatcata tccgaaccaa tctgagcctt 240
 tgcataatct ttctaggggt ttgctttggt gaatttgagg ttgcatcgtc gtgtgtagtt 300
 gctggtctta gagtctagtc ttttagagtt tcgagtcttg gtcataagtt gtcacgccgc 360
 cgccgcacca tcatcatcgc cctgcccac taccaccacc gcttatccgc caccgctccg 420
 aatccgtatc catataccac caccgattca tataccacca ccgattcata t 471

<210> 9890
 <211> 446
 <212> DNA

<223> Clone ID: LIB31-015-Q1-E1-B3

<400> 9892

tccacgtgac gttgacaaac gtgccaccct gccatcaaat gactacgtgc aatggccacc 60
tcacggtgca cctgtacgta gtgtactccg cctcagatgt tcagctgctc tctgggtaca 120
ccacaggcgg ccatacccgg cgatgggtact cgggaggata gcaccatcca atcccgccga 180
ggtgtgggag aggtgctgcg ccggcatcaa agttaagcct attaataaag aaaagatatt 240
tatatttctc gtatttggat gtgcctctat catgtggcgc ctgctaccat tttttaaaact 300
tgtgggcgcc tgctaccaac gggcgatgct atgtatcgct ctaagcgagc aagatacaaa 360
cgctgtcact acaaaaaaaaa gcggccgctc tagaggatcc aagct 405

<210> 9893

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-B5

<400> 9893

attcccggt cgacatgtgt cagggagtgc agtatctgaa tgaaatcaag gactctgttg 60
tggttgggtt ccagtgggca tcgaaagaag gtgctttggc tgaggagaac atgcgtggca 120
tctgctttga ggtcggatgat gttgttctgc aactgatgc tattcacagg ggtggtggcc 180
aggtcatccc aacagccagg agggtcattt atgcttctca gctcactgct aagccaaggc 240
tgctggagcc tgtgtacctg gttgagatcc aggccccgga gaatgcactt ggcggtatct 300
atggtgttct gaatcagaag agagggcacg tgtttgagga gatgcagagg cctggtacct 360
cgctgtacaa catcaaggct tacctcccgg tcatcgagtc gttcgggttc tcaagtacct 420
tc 422

<210> 9894

<211> 353

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-B6

<400> 9894

gtacgccccg gcacaccacc atcccagctg gaccacgagc tgtccccgagc taggcctccg 60
 cttggaaaag ccgcccagct cttggggccg cgactggggg gaccccagcg cccgggaagc 120
 cgccttgtag gcgcccgtgc ggaggagtgc tgggtgctgca cgctgaaca cgccgccaca 180
 cagattggat ctgactcctg cgcgtccatc gattcggcct agaagaagtt cgccaaaaac 240
 acgtcacatg tatcggtgc ctctcgatcc ataatccaac tccaagtcgc ttctccctca 300
 agaagaaaag gagagaaaga caagaaagcg gccgctctag aggatccaag ctt 353

<210> 9895
 <211> 453
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-B8

<400> 9895

gtaacggtcc agaattcccc ggtcgacatt cctcctgcaa aggttattga cattcctcat 60
 tcaaaggcgt tgcaaaaggt tgatcctctg gtgccatcca aggtgatccg tagagatgct 120
 cctccacaga gtttgccggt gttgcagaag gaaacaataa aagttgcttc ttcccaccag 180
 ccagacaggc agccgcagcc tgttctgcac aaaccaaagg tgctgtagt ctctcccctc 240
 atcaaacagc agcagtcaag caccttgccg aaagaagagc cttgttcttc tggcaggaac 300
 actgaaaaag gctcagtacc agaggttaag cagtcaaagt ctgatcgtaa gaagagccgc 360
 aaggctgaga aggaagagaa taaagagagg aagttccgag atctatttgt tacctggaat 420
 ccaccttcct tggagattga agagacctgg aat 453

<210> 9896
 <211> 439
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-C5

<400> 9896

ggtccagaat tccccgggtcg acccctatct acatacgtgc caagatcttg ggcagcgtg 60
 gggaccggca agtcgcgagt tcttacctcg aaggcgtcat cctggcaaac caagataagg 120
 ataacttcct cgtgccttac tttcccgagt aagtcctccc ctcaaccggc ccgtaacata 180

tgaattctta catttcgatac gtttttcttt taacattccg tgttttctgc agtgacacac 240
gttgacgct catcctccta agccccaat attccatggc cacgtatttc caccggacc 300
gtcagtcgaa cgtagactac acaaagtca agaaggttct tgatgatgtt ctccccggct 360
acgccaaatc tggaggcacc ttcaccaggc ctattcgtaa gtacggcaag cacgtgttct 420
cccacaatac gatgttctg 439

<210> 9897
<211> 449
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-C6

<400> 9897

acggtcctac attcccgggt cgaccctgat ctcgtatggt ggcgttcgcg tgggctagtt 60
tcggtgcgga gggagtcggc ccagccggag gtggtacgtc gccgtgtcag ggaggaggac 120
gagcacgtcc atcgatacat ggttgcgta gagggtgga ggttctccaa taccggcag 180
tttcttcagg gatctcactt caactatgat cctgtgaggg ttccttctct ttgggtgtcc 240
accgccgcgc cgcaggaacc gcgagtgtcc tagattcttc tgtagtattc gatctttatt 300
agctacctag ccagtgatgt attcgatatt atatctatta ttcgagatga tgtattcgag 360
attatatcta ttattcgaga cgatgtattc gagattatat ctattattcg agacgatgtt 420
tttgagatta tatctattat tcgagacga 449

<210> 9898
<211> 448
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-C8

<400> 9898

ggtcctaaat tcccgggtcg accttgaac tcctcgacat ccacataatc atcctccacc 60
ccgagcccga ccccaaatcc gtcgagcccc gtgaagtgc accccaatcg gggttcctct 120
tcttgggcca caatgttgtc tggatcacc tcccaggcac catgggcgtc ttaaggtccg 180
cgaggatcac tctgccgcac atggccgcta gtacctcacc atagtcgttg tggggtagga 240

acctcgattg aattggtaaa tgggcagagt ttttaatgaa gcggtggagc gggctctgtag 300
 gtttgtaggt tgagacaagg gcagtcacct atatacacgg tggtcgtgtg acggcgcccc 360
 cacccaaggt tccatgcac agtgaggggt cgtgcggcgc agaaggaacg aggtaggttc 420
 cggaagcaag tgcttcatt catgggga 448

<210> 9899

<211> 451

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-015-Q1-E1-D5

<400> 9899

ggtcctaaat tcccgggtcg acagcgagcg cttagagcac gaacttgacg ccggagcaag 60
 gaggccatgg catcgacgac gtgagcggaa atattggttc tgttggtgtg tctgttggtc 120
 ttccgaactt ggagaggtga tacagccgga actctcttca gagaagattt tgaagctaac 180
 tggatgatag ggtcagagat gatacccttg aaggattcag caagcatgac ccagctgccg 240
 tcgcgttggc cagctaagat ggtgttgact ctgatgtgga caacgggtca cgcgtgatgt 300
 atgtggccgg agaggttgat tccggtggag tagagggagt tgagcaaagt actgtgtttg 360
 ctctgctcnc gttgtgcaag atgggcacac catcttcaac agtttgttgt ggtgtgcgtg 420
 cgggtgtgctt gaggttccag acaaaaagaa a 451

<210> 9900

<211> 450

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-D6

<400> 9900

ggtccagaat tcccgggtcg acctcaggtat tatattcgta atggtaggcc tgcaccacca 60
 cctcaggtac gagatgatgt ccatattcct aaactgaaat tgaatatgat gaggacatga 120
 ctaccttgga tatgacaaaa aatattgcat atatgcatat ttgtcaggtg atttctagt 180
 caaactattc aataatgtat ttatgttatc cagaacaaaa atacttcaca cacttttgtg 240
 ttttgtctaa ttgcaggtgt atgggacatt tgtacaatcc acatatgaag ataaggaaga 300

aagagatgtt tatttgctgt ccaaaaagtt ctctcacgtc acttttggcc caagagaaga 360
tagagtccaa gtctctcacg ttctggattc atattcggac tgcacagaca tacctgactc 420
aaaacgcaca caagtttttc atacggactc 450

<210> 9901
<211> 450
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-D8

<400> 9901

ggtccagaat tccccgggtcg acgagattgt catactgggg cccgtatttc tacacaatat 60
gttcccccttt gagaggttca tgggagtcct aaaaaaatat gtccgtaacc acgctaggcc 120
agaaggaagc atctccatgg gccatcaaac agaggatgtc attgggtttt gtgttgactt 180
cattcctggc cttaagaaga taggtctccc taaatcgcag tatgagggga gactgactgg 240
aaaaggcacg ctggggagggg cctcaataat atgcagggac ggatattctt ggtctcaagc 300
acactacaca gttctataga actctacctt ggtgaccccg tatgtcgatg aacacaagaa 360
cagtttgcg cccaaacacc cggagcagtg cgacgactag attacatgtg aacacatcag 420
gactttcaac agttggttgg aaacacgtct 450

<210> 9902
<211> 442
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-E4

<400> 9902

attccagggt cgacgtcca gaggcacgta ctgggccaat gtggggatat atctgcatgg 60
gttcccagct gcctgcaaaa cctcgcgtca cttgtttcgc tggagatgtc tgagtgcccg 120
ggcataacat ccattccagg tgacatttgg aggacgaacc ttgcatctct agaggagtta 180
tatatcaccg attgtccaga cctggtctca attgggggat tggaggccgt tgcgcagcta 240
ggcacgctgc acatctctgg ctgccc aaag atgatagaga tgtagcagcc tgtgaagaga 300
ggcggagact agctaagatc ccatcacttt tcaagtctat ggatttttgt tgttgttgca 360

ctgagatctc tgtatctgtg tggatcactt gccaaactac tccagctctc tggccagctg 420
agctcatgcc tattcctaatt tc 442

<210> 9903
<211> 427
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-E6

<400> 9903

ttccccgggtc gacaaacatc tagcatattg ctccggcataa agtcatagtt gtaactatat 60
ggggcaacgt gaggacaaag atgccatgtc atagtcaagt cagttctgtt ggtgcgaggc 120
atgcttattt cttagtcgag actcgttgct gaagttggag ctgattggtc cttggcgtgt 180
ttggccgatt gtttgggtatt agtcggcagg gtttttgtgc gttggacgtg catggtaaag 240
tcagagtcgc ttgctcgtga gaagtgggtga cgatggcact ttgtagacaa cctcaatggt 300
gttacttggt tcatcaatgt ctgtggggtc ttatggatag gtaggtcaac tgcagtgcac 360
tatcgtgcgg gtgtgttga atagtcttcg catgtattcc atatattaaa atgcaactct 420
gttctag 427

<210> 9904
<211> 433
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-E7

<400> 9904

ccgggtcgac tgcaccagat aagtgtattc cgtgccctct ttttttctt aggtcatcgt 60
gtgtgcctag tccccgtgcc agatttgaat aacgttgact aaggagcctt gatttgtaca 120
ggttcaagcc tccactccga cgaccaaacc acccgatcc cgcgtcatct tccactccgg 180
cgggtggctca actcaagttt gcagaacacc ggatctgccc agggcaaggc cctcgtccac 240
gaatttggcc gggtaaaatc attttcttca ttgtttcggc cgggtgaggc tggatcacac 300
gtcaattact tgtgcttttc tcctgggtga tcactctgtc cagatttgca cttctttttt 360
ggtgattttt agtttgttcc atctattcct ttgagaccgg tgatccaact gtatggctta 420

atcgagatgc ata

433

<210> 9905

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-F1

<400> 9905

cgcaacaccc tatagtgagt cgtattaata cgaaaagtgc caattgtgga aaactacatg 60
ctaagagttg caaatatctg atgttcttta aaaaaggaag gcgacaacta ctcaaagcac 120
tcgtgctagc accaggaaag tctcaagcaa atgtttcttt tcctttgaaa tctaaaggat 180
atgaagccaa tactccggaa tcttggtttc ctattcctga gggcaccaaa ggtacttttc 240
tatgaacccc acaaatccag tgctccaaac gaagggtcca ccgtcaaatt gtccacttgg 300
aggtccttcc agtgtgcat aatacgtcaa tcccttaaca ctgagagaac atgcagcctc 360
gtgaaaatgt gatcatttgc ctcaaatcc atgtcgcaaa gattgcaggc ttaatcatgg 420
ggcgaacct 429

<210> 9906

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-F3

<400> 9906

attccagggt cgacgttcac aggacaccac taagagaatg gcaacataca tatcatcaaa 60
atatcgaaca catatcaagt tcacatgatt acttgcaaca tgattttctct cgtgacctca 120
agaatgaaag taactactca caaatgataa acatgctcaa gatcagaggg gtattaaata 180
gcataatgga tctgaacata taatcctcca ccaaataaac catatagtaa tcaactacaa 240
gatgtaatca acactactag tcaccacagg gcaccaatct atagttttga taaaagatt 300
gaacgcaagc gatgaactag gggttgagag aagttggtgt tgtgaagatg ttgatgaata 360
taacctccc caagatggga gagttgttgg tgatgatgat gacgatgatt tccccctccg 420
aaaaggaaat tccccggcg 440

<210> 9907
 <211> 443
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-F8

<400> 9907

```

gggccagaat tccccgggtcg actgtggaca gcgaaaaaca gtcttggaat gctctgtgga 60
aagtgaaagt tcttccaaag ctgaaagttt tctgtggag gctggcccaa caatcgatac 120
caacagttga tctgttgac catcgcaata tgtcaacaac tacacgttgt ggactctgtg 180
gagccgagga ctcatggcaa cattcgctat tacactgtac ggtagctagg tgtgtatggg 240
ctcttcatga tcaagatcta gtggaagctc taaataacac caaggagccg gatgctaaac 300
gttggtgtgt tgcatccag gacatgctat ctctgaaga gttcatcttg gtagtcacca 360
ctttgtggga actctggttt gcgcggcgac aggtactaca tgaaaatatt ttccagagtc 420
ctctatcaac ttacacttc atc 443

```

<210> 9908
 <211> 468
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-015-Q1-E1-G1

<400> 9908

```

cgctgtang tagccgtccg gaattccagg gtcgaccgac aagacgacag aaggaggggc 60
aaagatccaa gtaacaaggg acatggatgt tcaacccggc tcacagacag gatcggtcga 120
tctttcgggc actcctgacc agataaacag agctgagcag ttgataattg atgttcttgc 180
agaggctgat gctggatcat ctggcactat ctctaategg aagtacaacg cacctcaacc 240
tggtgctgag caattccaaa tgcaaattgc taacaataag gtgggtctgg ttattggtaa 300
gggtggtgag actataaaat ccatgcaggc caaatctcaa gctcgtatac aggtcattcc 360
tttgcatctg cctcctggtg atacttcaac tgaaagaata ctgtatattg atggtactgc 420
agagcaaatt gagatagcag agcagcttgt gagtggagtc actagtga 468

```

<210> 9909
 <211> 435
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-015-Q1-E1-G5

 <400> 9909

 gtcctaaatt cccgggtcga ccaatattatc tcagatcacg ctaagaactg ctccgagaaa 60
 tacgacggtg acctccctga acgccttctc ctgttcagga gcaatcattc ccatgggcac 120
 accggcgatc cagaacacgt tcatagccgt gagccataaa gtggccttgg tctgccaacg 180
 cttaaagtat gtaccggtac acttatctgg ttccagtgcg gcggcgaagc cacttgccaa 240
 aaaattccta cacataatag gtttttggat tgctgggtaa taggcaattt ttcgactaat 300
 ttaattcata aatagatgac tagcatgaca ttgacaaaat taacgacatg ctgatactga 360
 tataaataag cacgtaccac cacacattat gctagtcctg ctaatacgga aataattaga 420
 agaaggataa acgcg 435

<210> 9910
 <211> 449
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-015-Q1-E1-G6

 <400> 9910

 ggtccagaat tcccgggtcg acgcccataa tgcaataaat attgatataa aagaatgatg 60
 caaaatggac gtatcaactc cccaacggc tcttaagtga cccgcaactc agctaggcga 120
 gcatgcccac acgcccggcc gaactaggta tccacacatc actcccttgt gcactgttcc 180
 aacgatgttt ggatattcctt tcaactgctc cttagcttac acgcctatgc aactctgact 240
 ttaactctta tttcttctgg agatatcatc tgaaacaagc aaatccattt ttttagcgaa 300
 gcatgacggc gctacgggat ctggtacaca tcatgcacac ccatataacc ttgtaagtat 360
 ctgtctccg gtacaacatc aagggtcgatt cctcttattt gatcaaccat tcaccgtgtc 420
 aaaaatgcan anggggatgc aaggagcac 449

<210> 9911
 <211> 439
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-G7

<400> 9911

acggtcctaa attcccgggt cgacccgata gacaaacttg tcgaggcccg ttctcccaga 60
 gtgcccaccc cttattcttt cgtaagtacg atggagttcc tgaagaaagg acgccgactt 120
 catcatgatg accgaagcag agaaatgaag acatcagtgt attggaccag cctcttccag 180
 aagtgaagc caggatgaga agaccgcgta gattcggttac caaaccttcc ccccttactc 240
 ccctcttaaa tctcgggacg agatttcttg tagtggagga gaattgtgac gcccgataa 300
 tcatgctaca gtaactccct gtgattaagc taatcatggt gctaaacagg gcttgatcac 360
 atttgaatca ccttactttc ttactcctag ttcaaacttc aaatataatt aaagtgaata 420
 ataaaagttt tcaaaaact 439

<210> 9912
 <211> 447
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-H2

<400> 9912

attccagggt cgacgatcag gggcgggtgc tggagtcgtc tttgtgacgc caagcgaagg 60
 gataatcccg tactcattta ccctaacttc agcagtttca aatatttcgg ctgaatatga 120
 ggctttgata attgggcttg aattagctct gaatatgggg ttagattcac tcattgttta 180
 tggtgactct cagttagtga tcgaccaact actgggaatt tacatggtaa agaaagaaga 240
 attaatgcct tacttccaac gagccaaggt gctcatgtcc ttgtttactg atctaaaaat 300
 tcagcatatt ataagaagtc aaaacgaaaa ggccgacgcc ttagcagggt tagccgctag 360
 tttgtcacta acttcacatc agatgatgga cgttcgagtt gaagaatgta agatactacc 420
 tatactcacc gcaagagagg agacgac 447

<210> 9913
 <211> 405

<212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-015-Q1-E1-H7
 <400> 9913
 acggtccaga attccccgggt cgacctcagg attttcctta gaatttagct tccccgatta 60
 caaattatgg aagcttcatt cttgtccttg tagtacatcc gtactaaagt cttactgcag 120
 gtaaagggtt cacggaaata tggaattggg gaatatatag gagcactacc atcggtatta 180
 cttcggctctt ttttatattt ggattggatg tactaaaaag gaaaggctct ttttttcttt 240
 aattgtcatg gtgacacatg cgcgtgcatc attctcacac aaacaaaaat cagtttgtct 300
 aattcatatc tagatatattt ttaaggatgt cacattaagc tcttacaaat atataatgca 360
 gcaacagcca aaaaaaaagc taaagcagga aaaaaaaagc gggcgc 405

<210> 9914
 <211> 464
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-017-Q1-E1-B2
 <400> 9914
 cgcctgtcgg tagccgtccg aaattctagg gtcgacaaga accaagatgt gcttgattcc 60
 atgcacaacg ctctctctat ctaccgcgag ggttggcaac tctgcgtaa cgagggcgaa 120
 gcaccggctc ttcgaggatt tgcaggtgct gacacattgg accaacacca tgataatggc 180
 aactctgcct cgттаатgtc ggccaccaac gatgataagg ccaaaccgcc ccacatggcc 240
 attgacctca cctccaacgg gaggaataga ttaggttttc agttgttttt agggttttct 300
 ttgttatgta taaattactt cgaaatgatt gaaaaatcgg tgtccacctt atttgatcac 360
 tctggttgga tggcctccgc ccagctggct atccacaaac atgtccgaca atttttttga 420
 aggcgtactt atttgtaatc aagcaagcgg caaaccaata catg 464

<210> 9915
 <211> 404
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-017-Q1-E1-C1

<400> 9915

attccagggt cgaccagag ttaattactc tgggtgaatc tgatccttcc catgggttatg 60
aaactgaaac tgttgtggca catcttacta agttgaatga tatagccacc ctttttactg 120
atgatgagaa aactcgctat tactttattc tcaaattatt tcctttctca ttagagggtg 180
atgctaaagc ttggtacaat actcttgctc ctgggttgtgt gcgtagtccc caggatatga 240
tttattactt ctctgaaaaa tattttcctg ctcatatgaa acaagctgcc ttacaggaaa 300
tatttaactt tgtgcaaact agagaagaga gtctcccaca agcttggggg aggctttgca 360
aattacttaa tgctttgcct gatcatctc ttaagaaaaa tgaa 404

<210> 9916

<211> 426

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-017-Q1-E1-C6

<400> 9916

gtccagaatt cccgggtcga cataacaacc aaacgatggt gatatcttcc atgctacaca 60
cattataggc gggtcccaaa cagaatggta aagtttatac tccccctcca ccaacaagca 120
tcaatccatg gcttgctcga aacaacgagt gcctccaact aacaacagtc ccaggggggg 180
ttttgtttgc aattattttg gtttgatttg cataaagcat gggattgggc atcccggatga 240
ccagccattt tctcgtgagt gaggagcgga gtccactcct cttgagaata acccgcataa 300
catggaagat acggatagcc ctatttgata catgagctat ttgagcatac aaaacagaat 360
ttcatttgaa ggtttagagt ttggcacata caaatttact tggaacggta ggtanatact 420
gcaaat 426

<210> 9917

<211> 420

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-C8

<400> 9917

ggtccagaat tcccgggtcg acagcaacat tgaaaactct gcagccgcga ccagtgaagc 60
 gaagaaagaa atcggcaaag cgtccaagac tcagaagtca aattcatcct tgctttgcct 120
 gcttatggtg atctttgggg ttgttttgct tatcgtgata atagttttgg catcttgaga 180
 cacggatgct tagaggccta ttggtgccct ctgaggagcc atattacgtg caagattaat 240
 cctcgctgtg cgccgaagac tgtcgtaac tgaagtgtac attttctttt tctctcttct 300
 ttttcccttg tggtttgta gtgcgtattc ttgtgtggcg cgagtccttt ttttcccacg 360
 gcttgccctg agtgaacagt catgctcttt ttcacctaca aaggtttggt tgctgctttg 420

<210> 9918

<211> 419

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-D1

<400> 9918

attctagggc cgacgcgcc ctccgcggga agtactgcgt gtgcttcgat ccgctggacg 60
 gctcctcaa catcgactgc ggcgctcca tcgggacgat ctttgggatc tacatgatca 120
 aagacaagga caacgcgact ctggaggacg tgcgtcaacc cgggactgac atgatcgccg 180
 ctggctaccg catgtacagg agctcatgca cgcttggtgt gagcaccggg aacgggtgta 240
 atggcttcac tcttgatcct tcccttgggg agttcatact taccatccc aacataaaga 300
 taccaaaca agggaagatc tattcggta atgaaggga cgccagaaac tgggacgcgc 360
 ccacagcaa ccaacattgc aggtacgtgg agagatgcaa gtttcccaa gacggctca 419

<210> 9919

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-D2

<400> 9919

tccgaaattc aagggtcgac cacaatgata atcttcacgc atgcatgtgt gctgctagct 60
 cttgatggat ggtcactcga tttcagctgc cattgtgcat caccatctcc tggatgcctt 120
 gatatctgtg ttgctttggt gatctttgtg tagctcttga cataatcggc tactgttaac 180

aacttgaacc agtaataatc tgcttgatga tagaaacctt cttgttcctt cagaagaaca 240
gagctaagtg caggggtccat ttttctgaag gaaacactgg attcagttaa aagaaaaagg 300
aaacactgga tttctccacc aaatggcaag cagaaaaaga tgtctagttt ggtaattttc 360
aacgccttac aagttactgt acttgattag ccagaaggaa tataatgttc tttt 414

<210> 9920

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-D3

<400> 9920

atagtgagtc gtattaagcg atgaatgaga ttaatgcagc tgcaaggatg aggggtggctg 60
caaacgacaa ggcgggatgct gagaagattg tccagatcaa ccgtgccgag ggtgaagcag 120
aagccaagta cctgtctggc ctgtgtaacg cccgccagcg ccaggccatt gtggatggcc 180
tgacggacag cgtcctgtgc ttctcagtca atgtgcctgt caccactgca aaggacgtga 240
tggacatggt gctgatcacc cagtactttg aactatgaa agaggttggc gcgtcctcca 300
agtctcggc tgtgttcac cccaatggc cctggcgccg tgcccagat tcccacgcca 360
gatccccgac ggtcttcttc agggccaatc tgctctgac aactaatcac tttgcttcgc 420
cggc 424

<210> 9921

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-D6

<400> 9921

ggtcctaaat tcccgggtcg acgttcttgc aaaatttcgg aacaactgtc ttgttgcagg 60
aatacataga agaagctaga gatgttgggt cctattgtag tggagttttt gcaataggag 120
tcttgttaca gaaaaataaa gaagaagttt tacatcaagg gtcttgttgc agaaaaatag 180
agagaaaaag tttcgcaata ggtgtcttga tgcagtaa taaagaagag aatattttgc 240
aatagaggtc ttgttgcaaa aaattggaga agaagagatt tttgtcacat ggctcttgtt 300

gcagaaagtt acacgagaag aggtttcaca acaggaacat tgctgcaaga aattacagaa 360
 caagaatgga cggctcgctt cttacaatcg gacggctcac gaggcagcgg gtctttttaa 420
 agattcttcg gccgacgcat agcactg 447

<210> 9922
 <211> 442
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-017-Q1-E1-D7
 <400> 9922

attcccgggt cgacattgac aaagctgttg agtggactct atttggtgc ttttgacca 60
 acggtcagat ttgcagtgcg acatctcgtc ttcttatcca taaaaatata gctaaagaat 120
 tcgtcgacag gatggttgca tgggtcaaaa atatcaaggt gtcagaccg ctcgaggaag 180
 gttgcaggct tgggccagtt gttagtgaag gacagtatga gaagatcaag aagttttag 240
 cgaatgctaa aagtgaaggt gccaccattc tgactggggg tgtcaggccc aagcatctgg 300
 agaaaggttt cctcattgaa ccacaaatca tcaactgacat caacacatca atggagattt 360
 ggagggagga agtctttggt ccagtcctct gtgtgaagga attttctacc gaagaggaag 420
 ccatcgaact ggccaatgat ac 442

<210> 9923
 <211> 450
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-017-Q1-E1-D8
 <400> 9923

taaaggtcct aaattcccgg gtcgacgacc gttataaagg cgagatccac gtgaccatca 60
 tcgcaacagg atttccgcag tccttcaga agtcccttct ggctgaccg aaggagcac 120
 ggatactgga ggcgaaagta aaagcggcta gccttgcaac ggctgctgcg gtgcaacaac 180
 cggcagcggc cgtcccgaca tgggtccgga ggctcttctc ctgaacactg tttagcaggc 240
 aaacaacctt gcgattgtga ggctgtggtt cttactttct cgaggcagta gagagtttta 300
 gccggtgtta ttctttttgg ctgtgtaaac actctgaaa ctagtttcgc gtagtgatta 360

ggttctcgtc tagtgtatgt attgttcaga cacttgactc ggttgtttta gaaagtgttc 420
tgttcgttga cagctttggc aaccccaggg 450

<210> 9924
<211> 450
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-017-Q1-E1-E3

<400> 9924

attcaagggg cgaccaagag agataaagtg gattgctata atatcgagta tgaacagatc 60
ccccactttt gcttttctgt tggacgactg gggcactctg atctcttttg tcccacgcca 120
gggactcgcg atgcaaaggg cgatctcccc ttcaattcta gcctcagggc ggctgaggat 180
cggaagaagg gtttttcttg tgagagctca tccaaggaac ggtatgaaac aaggcaaagc 240
acgaaggaat catggacacc aagctctcag cagaacaagg gagtcgaggt tacttcccca 300
gtgaagaacc cctcattgaa caagcgcaag ggtgggccgc aacaggttta ccgtanggtg 360
gaaccagccc cgctcgccat gacagaacat ggggaagtgc atgcgactac tgaagaagca 420
tcaggaaaaa gctcagctgc agattctgaa 450

<210> 9925
<211> 427
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-E5

<400> 9925

ggtccagaac tcccgggtcg acaggagcgc atacgatatg tggtatttgc tcgtcaggac 60
cactgcacaa atattcgctt cgccggatga gatgggtgag ctgatgacta aaatggaaga 120
ttttacgcac cgaggggtggg tctgcgatca ctccatagtg ttctgagggg gattcaattc 180
agcactagac agccaaaagg aagacacaat aagctggcca agctcatatg catgcacctc 240
tgccaactga accatctaata acctcaccgg agtatgtaat gctatctagg ctgatgaatg 300
aattatctgg tgcattatgg ttagcaacat ggcattgctgt tctgttttcc ctcatatgatc 360
cggctgtcca ttaacttgct tttaactgaa cttctattgg attgtcttag ctttaataac 420

ctctttt

427

<210> 9926

<211> 268

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-E7

<400> 9926

attcccggt cgacgaagac gtacgaactc aggggtggtga tcatgtaatc cattgccatg 60

gaatgggttc tgttaagcca gatcgatc tctaggatga gaacgacatc ctggtaaacc 120

tgcatacaga gacgcgtcag aacattggtc gcatgaaagt tgccttctca atgatgggta 180

tgatgaagac gtgtgtgtga acacgagtgc acgaatctct tccatttgca gtagacatct 240

tgcgatcaa gatcaccgcg aataacttg 268

<210> 9927

<211> 455

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-017-Q1-E1-E8

<400> 9927

taacggtcca gaattcccg gtgcactaac agagcaatgt ctgtagggtg gctaacaggt 60

cgtcctgcag aggagatgcc tggttctatg ggtgaccttc ttctgagct ctgcgaactg 120

cttgatcaag tttggcaggt gatgcaaggc atcggccagg cctgtgggcc atccgtctcc 180

atgcccgaag gtcttggaga gcttgcatg aatctaaagg gagcacggcg gcgcttccga 240

ttgtggaaga tatcagcctg ccgtcaaggc gctagggagg cctgggcat ggtgaagacg 300

cggtaacaaa aggctgaccc caaccacatg gccgaggtcg gtcctgtang gccgatggg 360

aaggagatcc ttgtaagggt agtatacggc caagtagagt tggccgcana gtattcctag 420

taggactgta aattagacag cctgtagat ggtat 455

<210> 9928

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-F4

<400> 9928

tccggaattc tagggtcgac gcatcatcaa accgaccagc tgccatgctg cctatgagtc 60
atttttttagg agcaatgtca gggactcgac atccatttgg acctccgaat caggaccggc 120
cgcgctacga gcctcttgtg ttatcaagtg ttccttgcac gaccactega gagcctccgt 180
tccttctcgg gccatcgagc gaggcccccc ttgatccctc tcagttgacc ttaccggccg 240
agatgatctt tcaagaggag gcaatgctaa agcatcgggt aagttcaact caggagacca 300
cctcgatgcc agatttggga gcggtacggc tgactcgggt ctgagggcgg aatcgaagta 360
acttcgcgat caaaatggac agatgacttg gaatttctgg aacatttgct cattggagtg 420
ctccatttag gcagacaggc aat 443

<210> 9929

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-F6

<400> 9929

attccccggg cgaccatcca tcacaaaacc acagtaactc atgccatttt aagtgatata 60
aaaactattc gctaattttc agtaaaccac ttgttctttt gcttaataaa cccacagttc 120
tatttttaag tgagtttaaa gactttttta aatactagca aaacgaccca tgcgtcgcaa 180
ctgaagaaaa aaaaatcata atctctaagt gtcatgacca ctttttgctg catcaccgag 240
atacactatc actttcattt tcgtgaaatc gtgaacaatt tttgaaaatc atgaacattt 300
ttttaactga tgaacatata tgaaatcgtg aacattttcc aaatacttga acaattttta 360
aaaattgcaa actttgtcca aaatcataaa cgttttatga attcatgagc attttatact 420
atttgc 426

<210> 9930

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-F8

<400> 9930

attccccgggt cgacggcggc ggggtccaga tccgggtgctc ctccccctcc caatccatct 60
tccaggcagg ctcagcctcc aggcgcccct cgacgccgca ctgcacctca tgcaccagga 120
ccctgggtcgc cgccgtcacg gtctcctcct ccctgggtggc cgcggacgcc aactcgtgca 180
tctgcccagg aatccatgag gcaccacctg gccgtctctg tggcggatta cgacagattt 240
gcgaccaagc tcaagacccc cggcacagac ttgttcgcca agacgcaacc cgatggccgc 300
gcgcgccaag tgttcttcct cgaccgggac gcatttgtaa gggagtgggtg ttccatgatg 360
taagggcgtg ctctgataaa aacatgacat gacaatagag gtagatttga caactggatg 420
cccaggctta gataggaact gag 443

<210> 9931

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-H5

<400> 9931

gtccggaatt cgcggggtcga ccgcatcccg ccagcccaga cctgaggatg cccttttcaa 60
ggatcttggt gattttgcca agaagaatcc atcttctcca tctaaaccag ccaacagccg 120
caggactcgc tgagtgatga gtgtttcagt catgtaacac acataattga gttgccaggc 180
tgctgggtttt gctacaggtc ggcgaattag gtatatcatc aaataagagg gttcggtcgg 240
tctgttcttt attgcctcag ggaattattt ggtctgcgca ttggacaatt agagtcacag 300
gtgtcagata cgtagtcatg atactgggtg tgggtgtgtag cgagttgcat ttctcacctt 360
tttcttgtgt ggtattggtt accgattcct gctttatttt acttagctgt atatatttct 420
ccatttga 428

<210> 9932

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-H6

<400> 9932

attccccgggt cgactaattt attcgactat atggagatgg agcagaaggt cagctatgta 60
tgccaaggca gtgctaaaaa caataaaact acagcaatag cgacaaatgc tctaaaaaca 120
gtaaacaatga gacattaata cctgattagc ggcagcagca tcacgacat cgtcctcgtc 180
atcagcattg aagtcagcat catccttttc ctctggatta acacgagacc acttctttgc 240
agggtggaacc ttgcgcttca cgccgcattt cttcccctta ccagatgcac cagcaccaag 300
taaagaaggt gtagactcgg cagtggcaag cacacgagga ctacagcgtg gcgtaccacc 360
aaggcctaac ccttcatctt caacaacttc tgcaggcctt gaaatacgtg ggctctttcg 420
aggagttact tcaccaacta ct 442

<210> 9933

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-H7

<400> 9933

cccgggtcga catcaaggag gtacctgact tcaacaccat gtacgagctg tatgatccgt 60
caacggtgat gttcttcttc cgcaacaagc acatcatgat tgatctcggg acgggaaaca 120
acaacaagat caactgggca atgaaagaca agcaagagtt tgttgacatt gtggagactg 180
tctacagagg agctcgtaag gggcgtggtc tggtgattgc tcccaaggat tactccacaa 240
aataccgtta ctgaggatc tgtgcctggc tattcatgtg cagtgtgtgg cctgctctgt 300
tccgtgatat gcgctgtgtg acccttgatg taatgtctgt caactttgaa agtgtcgtaa 360
ctatgtattt gtatcttgaa tatcaacatg tcataaacct gcaacccttt aaaaca 416

<210> 9934

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-H8

<400> 9934

tcgcgggctg acgtcatcca caaagatacg ctaccatcac atcgaaagac aggacacctt 60

tgccctctatc aagtgggtatc agtttttcaga ttgcttgggtg agatttttcca gtttttcata 120
 gctaagatcg agtctgttct tcatacctac agtccacgaa aaaagccaaa aaattagggt 180
 tagttcatca tatccaaacc aatctgagcc ttgcatagt ctttttagag ttttgctttg 240
 ttgaatttgc ggttgcatca tcatgtcgag ttgctggctct tagcgtctag tcccttagag 300
 tttcgagttc tgttcatagg ttgtcatgcc gctgccgcac catcgtcatc atcattgcc 360
 tataccacca cccaaccct atacatgcc actgccatat acgaacacca atccgagttc 420
 gcatataaca tcgcatata 440

<210> 9935

<211> 405

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-017-Q1-E2-A1

<400> 9935

cgctgcccgg taccggcccg aaattcncga gtcgacatca tgagcttact gaagtttgtc 60
 gcagttgtgg tegtccacga gacgataccc ttcatactat gtgtaaatgc ccctggcgac 120
 gaacctgtgg gatgcaatgg cgaaagattt gcctagccct gatgtggatt ttgttcacaa 180
 caatggccct gaatggatgt tctcctgctc gagccaatca caaatagcc aagcgtggtg 240
 ttgctgacca tgtggcgtag ttggcacgtc cgtaacgaga taactcgtca gaagaatccg 300
 cccctacag aggcctcctg cagatttctc catggatata ttaactccct gctatataac 360
 cggcaacatg ctatacctga tattgttaaa ggcaaacgg tgggtg 405

<210> 9936

<211> 460

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-A12

<400> 9936

acggtccgag attcccgggt ccacagattt actaagaatg ctcaattcat tcctttgaaa 60
 catccttttt ctgctcctgt agtggccaag gctttcctcc acacattgggt caatctgcat 120
 ggacccccac acaccattgt gtctgataga gacaagatat tcactagtca tttttggaga 180

gatttgttca aactgcggga cactaagttg ctcatgagta ctgcttatca tctctaaacc 240
gatggacgga gtgagcgggt gaaccgggtg ttggagatgt tcctcagggtg tgcagttcat 300
gatacgcccta ctaagtggca tgcttggtg cccttggcag aattctggta caatacaaat 360
tatcactcat ctctggagtg ctctcccttc aaggccctat atggatatga accaacttat 420
ggagtctttc ctagtctgct acagtctgac aacatagatg 460

<210> 9937
<211> 162
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-A7

<400> 9937

tcccgggtcc actaggcgtg tgcaattgct tgctatccga gtactagagc tagcttatct 60
tttgggttac tgtcgcgtgg tcggtttgtc ttttgtgggt tactgtgcct agcctgccct 120
aatgggggcta tgggagtggt ctgtggagtt cccgggactg cg 162

<210> 9938
<211> 435
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-B10

<400> 9938

taccggtccg agattcccgg gtccaccgc tccgggagtt cgccaaggac agcgttcgcc 60
tcgtcaagcg ctgccacaag cccgaccgaa aggggttcac caagggtggcc attcggacgg 120
ccatcggtgt cgctgctcatg ggcttcgtcg ggttcttcgt caagttcatc ttcatcccca 180
tcaacaacat catcgtcggg tccggctgat ctcgtctccg caggtgaggg gccgcaggac 240
gagaggatgg tgtccattca tggaggcggc gctggttttc ttatcctcgt accttaaagc 300
aattcattta ggacttcatt gtagaggaca gttcccttgt gttttcattt gaaacagttg 360
tattggtaga cctggagcag ttttgaacct gattccgggt agaccgtaat atcaagcagt 420
gaatgacaag aattg 435

<210> 9939
 <211> 442
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-B8

<400> 9939

cggtccgaaa ttccccggggc gaccggaagg gagatagtgt tcttcgcgct gctcgtgggg 60
 gcagagctcg acggcctcac caacctgcag ccccgcggcg gctgcgacga cccagctac 120
 ccttactact tcaagtcaa gttatgttcg agggatggat cagttgtgat gattcctggg 180
 cagggaacac cactaactgc tgagcagagc cagaaaggag agatgacttg tttgatggtc 240
 tttgaatgca gaggctatga acctattgag ttcgcttttg gtactggctg gaaggctgaa 300
 tctgtacatg ggacaccatt tgacattgat ctttctgaac gagagtttga tgagtatgat 360
 gagaagggag agtgcctgt cgctctatcc aagctgcagt caacattcag agtgggtaag 420
 aagcagggtt ttcattgggaa ga 442

<210> 9940
 <211> 460
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-C1

<400> 9940

cgctgtccg taccgctccg aaattcccga ggtcgacca gagttaatta ctctgggtga 60
 atctgacct tcccatgggt atgaaactga aactgttgtg gcacatctta ctaagttgaa 120
 tgatatagcc acccttttta ctgatgatga gaaaactcgc tattacttta ttctcaaatt 180
 atttcctttc tcattagagg gtgatgctaa agcttggtac aatactcttg ctctgggttg 240
 tgtgcgtagt cccagagata tgatttatta cttctctgaa aaatattttc ctgctcatat 300
 gaaacaagct gccttacagg aaatatttaa ctttgtgcaa actagagaag agagtctccc 360
 acaagcttgg gggaggcttt gcaaattact taatgctttg cctgatcatc ctcttaagaa 420
 aaatgaaata ctgatatct tctataatgg actaaccgat 460

<210> 9941
 <211> 448

<212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-017-Q1-E2-C11
 <400> 9941

```

ttccccgggtc cacgtatcat aggcgacttc tgtccaatga gtggataaca tctgtcccaa   60
cgatgagccg acacgtgttt cctccagcca atgatgattt tacatgtgga aaatccccat  120
tggtcgggggc tgttaacggg ttatcggatc caaaacccga cccgttagct taacggcggt  180
ccgttacggg ggatgccacg tgtcggtcac ccttgacgaa agcacttctg tgacgcgcga  240
tttatcgta tggaagtgga cacttccgtg atgataattt tggtaatgtc atggaacact  300
tctacgacaa cacaggtatg actatcttga ttctgacata aatttgtcat ggatgtacat  360
gcatgacaaa aaacgcgacc tactgtgaca aacatgtatc atcacggaag tgtatttttt  420
ttgtagtggtg caaacttcgc cggtgcat                                     448

```

<210> 9942
 <211> 440
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-017-Q1-E2-C6
 <400> 9942

```

gggtccgaaat tccccgggtcc acagcaacat tgaaaactct gcagccgcga ccagtgaagc   60
gaacaaataa atcggcaaag cgtccaagac tcagaagtca aattcatcct tgctttgcct  120
gcttatgggtg atctttgggg ttgttttgct tatcgtgata atacatttgg catcttgaca  180
cacggatgct taaaggccta atgggtgccct ctgaggagcc atattacgtg caagattaat  240
cctcactgtg cgccgaagac tgtcgctaac tgaagtgtac attttctttt tctctcttca  300
tttttccttg tggtttggtga atgcctaata gtgtatggca cgagtccttt tattcccacg  360
gattacactg agtgaacagt caagcacttt ttcacctaca caagtttggt tgcagcattg  420
cttgagtcat agacgtgaca                                     440

```

<210> 9943
 <211> 452
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-017-Q1-E2-C8

<400> 9943

```
ggtcctaaat tcccgggtcc acataacaac caagagatgg tgatatcttc catgctacac 60
acattatagg cggttcccaa acagaatggg aaagtttata ctccccctcc accaacaagc 120
atcaatccat ggcttgctcg aaacaacgag tgcttccaac taacaacagt cccagggggg 180
gttttggttg caattatgtt ggtttgattt gcataaagca tgggattggg catcccgggtg 240
accagccatt ttctcgtgag tgaggagcgg agtccactcc tcttgagaat aacccgcata 300
acatggaaga tacggatagc cctatttgat acatgagcta tttgagcata caaaacagaa 360
tttcatttga aggttttagag tttggcacat acaaatttac ttggaacggt aggtagatac 420
tgcagatang aaggtatant ggactcatat gg 452
```

<210> 9944
 <211> 464
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-017-Q1-E2-D1

<400> 9944

```
cgcttgccg taccgctccg aaattcncga ggctgacgcg cccctccgcg ggaagtactg 60
cgtgtgcttc gatccgctgg acggctcttc caacatcgac tgcggcgtct ccatcgggac 120
gatctttggg atctacatga tcaaagacaa ggacaacgcg actctggagg acgtgctgca 180
acccgggact gacatgatcg ccgctggcta ccgcatgtac aggagctcat gcacgcttgt 240
gttgagcacc gggaacggtg ttaatggctt cactcttgat ccttcccttg gggagttcat 300
acttaccat cccaacataa agatacaaaa caaagggaag atctattcgg tcaatgaagg 360
gaacgccaga aactgggacg cgcccacagc aaaccaacat tgcaggtacg tggagagatg 420
caagtttccc caagacggct catcaccaaa atccttgaga taca 464
```

<210> 9945
 <211> 461
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-017-Q1-E2-D10

<400> 9945

gggccgaaat tcncgggtcc acgcgttcag atgcaccacc ggtaatgaca ttgatgccgg 60
attgccgggtg cgtgcgtggg agcttggtgc gtcaaattgc tttcgagtga cgaagcccaa 120
ctccctgttt catttctgta atcagataac aaccgtgccg tgccatggca ggcttcaaca 180
gtgttgagct ccaaggcacc atcgactact tgtcaatcac gccggcggcc cgcgctggat 240
gttaccatgt aatggatgaa gcaaattgcc actgatttag aaccagcgga ttggttcctg 300
gtacgccgct gggttcagtg tctgaacctt atgatttaga aggtgtcaaa ccaaattgatg 360
tatccgctgg ttcattcaat tcagtgccga acccaatgat ataattgatg aagcaaacac 420
ccaccgattc atccattatg atgaacctcc aactacaaca g 461

<210> 9946
<211> 460
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D12

<400> 9946

gggccgaaat tccccgggtcg acagcaccca actcatatgt tcttcgcgag gacctctctc 60
ttatttacac gatgagcttc ctggttgctg gattgatctg ggcacttggt acgctgccac 120
ggagcggatg gcggcctaac aagacgcttg gggttggcct cattgttctc tactcagttt 180
tccttttcat tagagtaagc agtgctatgg ggatattgcc actccccggc ttgaattagt 240
tgtttggtgc tattgtacat gactgtcctg tatacagatg aaatgggggt gtacattggt 300
cctttgttct gttgttatgc ctcaaatttg gttgtatgcc tgtcaggctt tcagagacaa 360
taaagccaga gcatgcctgc aactgggtcta cttatttgta caaaaaaat aaaaaattaa 420
gtaaacaaaa agcggccgct ctatatgatc caagcttacg 460

<210> 9947
<211> 470
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D2

<400> 9947

tggtacgcct gtccgtaccg gctcgaaatt cccgagtcga ccacaatgat aatcttccag 60
catgcatgtg tgctgctagc tcttgatgga tggtcactcg atttcagctg ccattgtgca 120
tcaccatctc ctggatgcct tgatatctgt gttgctttgt tgatctttgt gtagctcttg 180
acataatcgg ctactgttaa caacttgaac cagtaataat ctgcttgatg atagaaacct 240
tcttgttcct tcagaagaac agagctaagt gcaggggtcca tttttctgaa ggaaacactg 300
gattcagtta aaagaaaaag gaaacactgg atttctccac caaatggcaa gcagaaaaag 360
atgtctagtt tggtaatttt caacgcctta caagttactg tacttgatta gccagaagga 420
atataatggt cttttacagg tccagtgtgg ctcccttgatt caggggaagc 470

<210> 9948

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D5

<400> 9948

ggtcctaaat tccccgggtcg acgaatctct ggatatggtg attcatgaaa cccatggtat 60
gatgtgtaaa cacagtcccc cctggcgaat ggaagtagca taactcggta atcatcgccg 120
gtgatatgat cgatgattgg ttggatgctc ggataattga gcccgaggaa catggagtgg 180
ttgccgaggc tgtaaaccgg cctccaattg aatacgctcg gccaaacaaa gctgggatct 240
ttctcgaaca cgaagcagcc agagccgtca atgtcacgaa cgcccgaggc attgtaccgc 300
atgtggtttg atgaaatggg ttgggtcaatt tggtagctgc aaatgagcat caaatgacaa 360
ccgtcagctg aacgaacgat aaaccaccac ccatcggtcg gtatgattcc aggtcctaga 420
atcatgaagg ccagcgcatt tgcgtctgc 449

<210> 9949

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D6

<400> 9949

gtaacgggtcc gaaattcccg ggtccacgac cgttataacg gcgagatcca cgtgaccatc 60
atcgcaacag gattttccgca gtccttccag aagtcccttc tggctgacct gaagggagca 120
cggatactgg aggcgaaagt aaaagcggct agccttgcaa cggctgctgc ggtgcaacaa 180
ccggcagcgg ccggtcccgac atgggtcccg aggctcttct cctgaacact gtttaacagg 240
caaacaacct tgcgattgtg aggctgtggt tcttactttc tgcaggcagt agatagtttt 300
agccggtggt attctttttg gctgtgtaaa cactctgaaa actactttcg cgtagtgtt 360
aagttctcgt ctagtgtatg tattgttcag acacttgact cggttgtttt agaaagtgtt 420
ctgttcgttg acagctttgg caaccccagg gctcgtc 457

<210> 9950

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D7

<400> 9950

ggtcctaaat tcccgggtcg acattgacaa agctgttgag tggactctat ttgggtgctt 60
ttggaccaac ggtcagattt gcagtgcgac atctcgtctt cttatccata aaaatatcgc 120
taaagaattc gtcgacagga tgggtgcatg gtccaaaaat atcaaggtgt cagacccgct 180
cgaggaaggt tgcaggcttg ggccagttgt tagtgaagga cagtatgaga agatcaagaa 240
gtttgtagcg aatgctaaaa gtgaaggtgc caccattctg actgggggtg tcaggcccaa 300
gcatctggag aaaggtttcc tcattgaacc cacaatcatc actgacatca acacatcaat 360
ggagatttgg agggaggaag tctttggtcc agtcctctgt gtgaaggaat tttctaccga 420
agaaggaacc atcgaactgg ccaatgatac tca 453

<210> 9951

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D8

<400> 9951

ggtcgaaat tcccgggtcc acgttcttgc aagtattcgg aacaactgtc ttgttgcagg 60
 aatacataga agaagctaga gatgttgggt cctattgtag tggagttttt gcaataggag 120
 tcttgttaca gaaaaataaa gaagaagttt tacatcaagg gtcttggtgc agaaaaatag 180
 agagaaaaag tttcgcaata ggtgtcttga tgcagtaaat taaagaagag aatattttgc 240
 aatagaggtc ttgttgcaaa aaattggaga agaagagatt tttgtcacat ggctcttggt 300
 gcagaaagtt acacgagaag aggtttcaca acaggaacat tgctgcaaga aattacagaa 360
 caagaatgga cggctcgcct cttacaatcg gacggctcac gaggcagcgg gtctttttaa 420
 aagatccttc ggccgacgca tagcactgcc cta 453

<210> 9952
 <211> 376
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-017-Q1-E2-E1

 <400> 9952

cgcctgttgg taccggctcg aaattcncta gtcgacaatt gcattcaagc ccaacacagc 60
 cgatgatccc catatgagaa agcccgatat taccaaggcc aagcaactgc taggttggga 120
 gccaaaggta tctctgaagg aaggccttcc cttgatgggtg acagatttcc gcaaaaggat 180
 cttggatgag taatcaaggc aacagtgaga tgaatctatt tggttctgaa tgctgcgaat 240
 ataggcaaac gcgcttcacc aactggatcc gttcagtaca attctgtggt tgtataacga 300
 ccttgtagaa tcatttaaatt ttgttttcgt cttggtgaga ctggacagaa gtaaccaatg 360
 gttttttgtt caaaaa 376

<210> 9953
 <211> 469
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-017-Q1-E2-E10

 <400> 9953

cctgccggta acggtccgaa attcccgggt cgaccccta gggtttctgg aatattgggg 60
 tatttataga gcaaagaggc ggtgcgggag gcacctaggt gggcataacc cacctgggag 120

cgccctgggcc cccaggtgcg ccctgggtggg tcgtgcccc cttggggcac ccctctcgta 180
 cttcttcagc ccattcttggtg tcttctgggtc cagaaaaaac cacaaaaagt tttgctgcgt 240
 ttggactccg tttggtattg atatcccgcg atgtaaaaaa catgcagaaa acaacaactg 300
 gtactggaca ctatgtcaat aggttagtac caaaaatgat ataaaatgac tataaaatga 360
 ttgtaaaaca tccaagaatg ataataaac agcatggaac aatcaaaaat tatagatacg 420
 ttggagacgt atcagcatcc ccaagcttaa ttcttgctcg tcctcgagt 469

<210> 9954
 <211> 466
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-017-Q1-E2-E11
 <400> 9954

taccggtccg aaattcccgg gtccacattg acgggagggg cattgcatca actccggatt 60
 cgaagcaggc tgccgcatct tcgaaacttc ctgtggagac tgctgctgca tccactgcgg 120
 tgccccctca tgcagacgtg taccatttag gcagccagtc acagcggtcc gccttggcca 180
 gccaaaggtc cgggcagcta cagaggccaa tccagaaatg gaaaggccct gacaagatca 240
 gcaggatcta tgggtgattgg atagacgaaa ctgactagga agaggagcgc cgtgtctgtc 300
 tcctttacc agtttagttc tagttggcac tgctggaaga gtctgcgtgt tgtaagacta 360
 aaacattatg ctgccgcaac ttgtattgtg tctgttgat gcgtgattgc agtgaactcg 420
 ccgctgggag agctgtatgg atggtagtgt tctggtcttc tggata 466

<210> 9955
 <211> 472
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-017-Q1-E2-E3
 <400> 9955

cgccctggccg taccggcccc aaattcccga gtcgaccaag acagataaag tggattgcta 60
 taatatcgag tatgaacaga tccccactt ttgcttttcg tgtggacgac tggggcactc 120

tgatctcttt tgtccacgc cagggactcg cgatgcaaag ggcgatctcc ccttcaattc 180
 tagcctcagg gcggtgagg atcggaagaa gggtttttct ggtgagagct catccaagga 240
 acggtatgaa acaaggcaaa gcacgaagga atcatggaca ccaagctctc agcagaacaa 300
 gggagtcgag gttacttccc cagtgaagaa cccctcattg aacaagcgca aggggtgggcc 360
 gcaacagggtt taccgtangg tggaaccagc cccgctcgcc atgacagaac atggggaagt 420
 gcatgcgact actgaagaag catcaggaaa aagctcagct gcagattctg aa 472

<210> 9956
 <211> 450
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-E5

<400> 9956

cggtcctaaa ttcccgggtc cacaggagcg caaacaagat gtggtatttg ctcgtcagga 60
 ccaactgcaca aatattcgct tcgccggatg agatgggtga gctgatgact aaaatggaag 120
 attttacgca ccgaggggtg gtctgcgatc actccatagt gttctgaggg ggattcaatt 180
 cagcactaga cagccaaaag gaagacacaa taagctggcc aagctcatat gcatgcacct 240
 ctgccaactg aaccatctaa tacctaccg gagtatgtaa tgctatctag gctgatgaat 300
 gaattatctg gtgcattatg gttagcaaca tggcatgctg ttctgttttc cctcattgat 360
 ccggctgtcc attaacttgc ttttaactga acttctattg gattgtctta gcttaattaa 420
 cctcttttat cttaatgaat aatatctttt 450

<210> 9957
 <211> 456
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-E6

<400> 9957

ggtccgaaat tcccgggtcc actaacagag caatgtctgt aggtgtgcta acaggtcgtc 60
 ctgcagagga gatgcctggg tctatgggtg accttcttcc tgagctctcg caactgcttg 120
 atcaagtttg gcaggatgat caaggcatcg cccaggccct gtggccatcc gtctccatgc 180

ccgaaggtct tggagagctt gcgatgaatc taaagggagc acggcggcgc ttccgattgt 240
ggaagatatc agcctgccgt caaggcgcta gggaggcctg ggccatggtg aagacgcggt 300
acacaaaggc tgaccccaac cacatggccg aggtcggtec tgtagggccccc gatgggaagg 360
agatccttgt aaggtttagta tacggccaag tagagttggc cgcaaagtat tcctagtagg 420
actgtaaatt agacagcctg ttagatggta ttgaag 456

<210> 9958
<211> 329
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-E7

<400> 9958

ggtcctaaat tcccgggtcg acgaagtctt acgtactcag ggtggtggtc atgcaatcca 60
ttgccatgga atgggttctg tgaagccaga tcgtcatcac tagaatgaga acgagatcct 120
ggtaaacctg catcagaaga cgcgtcagaa cattggtcgc atgaaagttg ctttctcaat 180
aatgggtatg tcgaaaacgt gtgtgtgacc acgagcgcac gaatcgcgtc catttgctg 240
agaatcttcg cgacaagatc accgcgaata cttgcctgog catggcacac atctgttgct 300
acttgatcaa tgcgattacg cacagcttc 329

<210> 9959
<211> 446
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-E8

<400> 9959

acggtccgaa attcccgggt ccacatacac ctacatacac atgtcaagca ggcgatgaat 60
gagattaatg catctgcaag gatgacggtg gctgcaaacg agaaggcgga ggctgagaag 120
attgtccaga tcaagcgtgc cgagggtgaa gcagaggcca agtacctgtc tggcctgggt 180
atcgcgccgc agcgccaggc cattgtggat ggctgaggg acagcgtcct gagcttctca 240
gtcaatgcgc ctggcaccac tgcaaaggac gtgatggaca tgggtgctgat caccagtag 300
tttgacacta tgaaagaggt tggcgcgtcc tccaagtcct cggcgggtgtt catcccccat 360

ggccctggcg cggtgcgga catcgccacg cagatccgcc acggtcttct tcagggccag 420
tccgctctg acaactaagc actttg 446

<210> 9960
<211> 459
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-F10

<400> 9960

ggtccgagat tcccgggtcc acatcgagcc ggatgcgcat gtcaagcagg cgatgaatga 60
gatcaatgca gctgcaatga tgagggtggc tgcaaacgac aaggcggagg ctgagaagat 120
tgtccagatc aagcgtgccg aggggtgaagc agaggccaag tacctgtctg gcctcggtat 180
cgcccgccag cgccaggcca ttgtggatgg cctgaggggac agcgtcctgg gcttctcagt 240
caacgtgcct ggcaccactg caaaggatgt gatggacatg gtgctgatca ccagtactt 300
tgatactatg aaagagatcg gcgcacctc caagtctctg gcggtgttca tcccccatgg 360
ccctgggtgcg gtgcgcgaca tcgccacgca gatccgcgat ggtcttcttc aatgccagtc 420
tgctctgac aactagcagt tggctttgcc ggcataaac 459

<210> 9961
<211> 456
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-017-Q1-E2-F2

<400> 9961

ggtacgcctg ccggtaccgg ctcgaaattc ncgagtcgac tctcacagaa aaagatagcc 60
accatctcat cgaaacatcg gaagacctta gcctctagca agtggtatca gatttccagg 120
ttgcacggtg agattttaca gtttttcgta gattagatcg agtctgttcg tcagtaccta 180
cagggtccacg atgaaagcca caaaaagat tagggtagt gcatcatatc cgaaccaatc 240
tgagcctttg cataatcttt ttagggtttt tgcatgttg aatttgcggt tgcacgctcg 300
tgtcaagttg atggtcttag agtccaatct tttagagttt caagttctgg tcataaattg 360
tcacgccgcc gccgcaacat catcatcgcc catctaccac ttttgcttat ccgccaacgc 420

tctgaatcca gatccatata ccaccagcaa tccgta

456

<210> 9962

<211> 460

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-F4

<400> 9962

acgcctgccg gtaccggccc gaaattcccc agtcgacgca tcatcaaacc gaccagctgc 60
catgctgcct atgagtcatt ttttaggagc aatgtcaggg actcgacatc catttgacc 120
tccgaatcag gaccggccgc gtcacgagcc tcttgtgtta tcaagtgttc cttgcacgac 180
cactcgagag cctccgttcc ttctcgggcc atcgcaggag tcccccttc gatcccttca 240
gttgacctta ccggccgaga tgatctttca agaggaggca atgctaaagc atcggctaag 300
ttcaactcag gagaccacct cgatgccaga tttgggagcg gtacggctga ctcggtctg 360
agggcggaat cgaagtaact tcgcgatcaa aatggacaga tgacttggaa tttctggaac 420
atttgctcat tggagtgtc catttaggca gacaggcaat 460

<210> 9963

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-F5

<400> 9963

taccggtccg aaattccccg gtcgactggg gttttcgacg ggattgggtc ggggattttt 60
ctcatgagat aaggtaatca acttaatttg cgagatatc actcatcact taacgcagtc 120
cgtccgtcac tgtaatacaa caggcggtaa tcgttgtgga atcatttggt gttctatgct 180
tatgtcttgg gtgttcattc atgtatgtat aatgcgagca caaatcgggc aactgtggta 240
gtggccactt ggtaacgagg ttctatctca tcgttctgga tgacttcatg gagcacgcgg 300
tatgttcaat ctcaatctat cacggtcggc atagcataaa tttgtgaaca tataccgtct 360
gttgctacgt tatctatata tttgcatcag atcattgtaa cattatctat ttttaattct 420
atagttcagt actttgcgtg catctatata tggatat 457

<210> 9964
 <211> 458
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-F8

<400> 9964

tacgggtccga aattccccggg tcgaccatcc atcacaaaac cacagtaact catgccattt 60
 taagtgatat aaaaactatt cgctaatttt cagtaaacc cttgttcttt tgcttaataa 120
 acccacagtt ctatTTTTta gtgagtttaa agactTTTTa aaatactagc aaaacgaccc 180
 atgcgtcgca actgaagaaa aaaaaatcat aatctcta at ggtcatgacc acattttgct 240
 gcatcacgga gatacactat cactttcatt ttcgtgaaat cgtgaacaat ttttgaaaat 300
 catgaacatt tttttaactg atgaacatat ctgaaatcgt gaacattttc caaatacttg 360
 aacaatttta aaaaattgca aactttgtct aaaatcataa acgttttatg aattcatgag 420
 cattttatac tatttgcaaa aaataaaaaa ttatgaac 458

<210> 9965
 <211> 467
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-017-Q1-E2-G1

<400> 9965

cgctgcccng taccgggtcg aaattccccga gtcgacatct actaaggctt cagcttaagt 60
 ggggttcagcc gccccaaatc tgactcgatc cagggttata tatcataaag ggcttcgaca 120
 aggggtttga ttcgttcttt gagcaaaaag ataagggtcg aataccggag ttctttcttt 180
 gcttccaaga acatagattc cttcttcaac ccagggtcatg accgagggcg ggtatctcac 240
 tcgcatatct agagcccagc atctctcctg aacgacacct tctgcagact ctactggtgg 300
 tatttccccga ggcgagggtc aatatgtgca ttcatatcgg tcaggaaacg acaatgactc 360
 ttctttctttc cggaagcta tgggcacctc acaattctta tacgacatta gtggaagcga 420
 acattcgtag cattcattgt caccgatcat tgacaaaaga agaaaaa 467

<210> 9966
 <211> 458
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-G10

<400> 9966

```

gggtccggaat tcccgggtcg acgaagacga cagaagggat cataaagact agatacagaa 60
gttgatgccg gactatcatc catccagagt atggtggaga acccaccttg caaagccgaa 120
gacttatatc cgcatactat atcatcattg aaggcaagtt cgggggctac tgaggggagtc 180
ctagattcgg gggctctcaa gtgtccgtcc caggagtatg ggccagggtg gatgggtcat 240
acaagatcaa gctgaagact atccttcgtg tccatgtggg acttctccat acgtaaacta 300
caagattaga gtccagatgt atcatttcct tccctgatga accgaccttg taaaaacct 360
aggccccctc ggtgtgtata taaactggag gggtagtcc gtagaggcta tccacattac 420
tatcatcaga atattcacag gctagacatc tagggttt 458
  
```

<210> 9967
 <211> 433
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-G12

<400> 9967

```

ttcccgggtc gatttccacc aaagcgatat ccatcatctc atcgaaagac gggacacctt 60
tgcctctatc aagtggatc agatttctag gttgctcggg gagattttac agtttttcgt 120
agtttagatc gagtctgttc ttcataccta tagtccacga aaaagccaaa aaaaataggg 180
ttagttcatc ccatccgaac caatctgagc cttgcaattt tcttttcatt gcttgcatag 240
ttgaattatc ggttgcatca tcgtgtcgag ttgctggtct tagtgtctag ttcgtttaga 300
gtttcgagtt tttttcacat tagtcacgcc accgctgcat cattatctct tccgctgtcc 360
accacccatc catcaatttc caccacgtgc taccaccat tcattgtcat aataatagtt 420
gggatctagt ttg 433
  
```

<210> 9968

<211> 426
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-G3

<400> 9968

cgctgtcag taccggcccg aaattcccg gtcacactc ttattgagga agtgctctgc 60
 gagacgcca tcaacgagta tgtccagtcg tgtgacatcg ttgccttcaa caagatctag 120
 aatctttgtt caccacttg ttgctgctgg attcttggtta ctgggatctg tcgatctgga 180
 aaacattatt gtcgtcccat ttagttaccc ctcttacaga aatgctgctg gttttgtttt 240
 tgagtgatgc cctggtcttg aatgtctgct acctttaaat agttgaactg ctgagcgggt 300
 tgtaatggcg aaacatctat catgtggagt aaaatcagtc ttgataaaa aaaaaaagg 360
 gagaagtaga agaaaagaga aaaagaggaa gaggggagta aaagagaaga aaaaaaatgt 420
 gatagg 426

<210> 9969
 <211> 449
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-G4

<400> 9969

ttcccgagtc gactcgaact caatcactct cccgcttact acgccgtggc cccgcatgct 60
 gtagtactcc taaaaccat accgccgcac gcatcatcag ttttcttcaa gaggacgagg 120
 gagaagcgga tttgtagtgg aggcgcttta aaaaaggat ttgtagtgga ggcccctacc 180
 ctaagggtgcc ctaggtagct accgcacaca tcattggttt tcttttttct ttatactctt 240
 gcgccctaga gtgaaatgat ggttgcttca tccgtccaac ttaatgcggg aaagggtggg 300
 ctttgtgatt tgaccctca tcgctcattt actactattg cggcgctacg accggggtgc 360
 ctccaagtcc aaccgctgct ccgaactata atttggtgca tcacgcgtgg aacaagatgg 420
 tggatgagcc acatgttggc caaaggggt 449

<210> 9970
 <211> 429
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-G7

<400> 9970

```
acggtccgaa attccccgggt cgacaaatca actagaggag aggctaaggg ctgcttatgc   60
ggacaaacaa catgccgaat ggcaggaagc cgctgggtcat catgtatcga cacaaccat   120
taatgagaag aacaaactac cggatgcaaa tatcaagcaa gccgaagaac tgaaggattt   180
aagagcccaa ctatcggatg ctttcaagga gaacaggaag ctgagaggca gcatattcag   240
tatgctcttt aacctgactg tcacatggtc tcctgtttga aaatttgaca agtttacttc   300
tgtaggtgtg ctaatcagac accccaagg agaagtgtct ggattccaag gcgaccagct   360
acaagagcta tcaaaggtgc acgagcaagc acgaaaagca ttgaggaaca tggctaaaca   420
tttatggcc                                     429
```

<210> 9971

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-G9

<400> 9971

```
tgatgaatct gacaagacca gagaactctg tcggagagag aagattgaga aagttcctca   60
ctttagcttt tataagagca tggagaaaat acacgaggaa gaaggatttg aaccggacca   120
gttaatggga gacgttctat actacggaga caaccactct gcggtggtgc agctgcacgg   180
ccgacctgac gtggaaaagc tgatcgacga gaatcgcaact ggaggcaagc tgatcgtgct   240
tgacgttggg ctaaaacatt gtggtccttg cgtaaagtg tatccgaccg tgctgaaact   300
gtccccggtc atgtccgaga cagtcgtatt cgctagaatg aacggtgacg agaacgatag   360
ttgtatggag tttct                                     375
```

<210> 9972

<211> 446

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-H12

<400> 9972

ttccccggggtc gacgagaagg acaggaatat cagagatctg aaggctaagg tggaaaaaag 60
gaatatgtgg gtcaacgggc ttaccaaggg ctgggggttca ctggcagatg acctgctagg 120
ttctgcatat gatcaagctt tgcttccgac cgggtgcttcg gtagttctac atttttatca 180
tggttgaaaa tgcattccac cgtgcactac tcatcgatga tttgcacata agcttgaaac 240
caattaacaa ttgcatcgcc tggaggcacg agggagtctg atgttacgag agcacatgaa 300
gacaaggcag ctaatgtttc tgttcaagat gtcaaccaca tcttcatagc ctgattctcg 360
tgcctttcct gttgcgttct cccgttgcaa cgcacggggc cttttgctag tataatctaa 420
aaattagtat cggaggtttg gaccac 446

<210> 9973

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-H5

<400> 9973

gtccggagat tccccgggtcg accgcatccc gccagcccaa acctgaggat gcccttttca 60
aggatcttgt tgattttgcc aagaagaatc catcttctcc atctaaacca gccaacagcc 120
gcaggactcg ctgagtgatg agtggttcag tcatgtaaca cacataattg agttgccagg 180
ctgctgggtt tgctacaggt cggcgaatta gatatatcat caaataagag ggttcggtcg 240
gtctgttctt tattgectca gggaattatt tgggtctgcg attggacaat tagagtcaca 300
ggtgtcagat acgtagtcac gatactgggt gtggtgtgta gcgagttgca tttctcacct 360
ttttcttctg tgggtattgg taccgattcg tgctttatct tacttagctg tatatatttc 420
tccatttgac ggcagtattc tattc 445

<210> 9974

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-H6

<400> 9974

ggctcctaaat tcccgggtcg acttcctcca aaatgatagc caccatctca tcgaaagaca 60
 ggacaccttt gcctctatca agtggtatca gttttcagat tgcttggtga gattttccag 120
 tttttcatag ctaagatcga gtctgttctt catacctaca gtccacgaaa aaagccaaaa 180
 aattaggggt agttcatcat atccaaacca atctgagcct ttgcatagtc ttttttagagt 240
 tttgctttgt tgaatttgcg gttgcatcat catgtcgagt tgctgggtctt agcgtctagt 300
 cccttagagt ttcgagttct gttcataggt tgtcatgccg ctgccgcacc atcgatcatca 360
 tcattgccat ataccaccac cccagcctat acatgccac tgccatatac gaccaccaat 420
 ccgagtcgcg atataccatc gccatata 448

<210> 9975
 <211> 460
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-H7

<400> 9975

ctgcagtaac ggtccgaaat tcccgggtcg acatcaagga ggttcctgac ttcaacacca 60
 tgtacgagct gtatgatccg tcaacggtga tgttcttctt ccgcaacaag cacatcatga 120
 ttgatctcgg gacgggaaac aacaacaaga tcaactgggc aatgaaagac aagcaagagt 180
 ttgttgacat tgtggagact gtctacagag gagctcgtaa ggggcgtggc ctggtgattg 240
 ctcccaagga ttactccaca aaataccgtt actgaggtat ctgtgcctgg ctattcatgt 300
 gcagtgtgtg gcctgctctg ttccgtgata tgcgctgtgt gacccttgat gtaatgtctg 360
 tcaactttga aagtgtcgta actatgtatt tgtatcttga atatcaacat gtcataaacc 420
 tgcaaccctt taaaacaaga cctgctgtct attggtatta 460

<210> 9976
 <211> 466
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-H8

<400> 9976

cctgccggtg ccggtcctaa attcccgggt cgactaattt attcgtctat atggagatgg 60

agcagaaggt cagctatgta tgccaaggca gtgctaaaaa caataaaaact acagcaatag 120
cgacaaatgc tctaaaaaca gtaaacaatga gacattaata cctgattagc ggcagcagca 180
tcatcgacat cgtcctcgtc atcagcattg aagtcagcat catccttttc ctctggatta 240
acacgagacc acttctttgc aggtggaacc ttgcgcttca cgccgcattt cttcccctta 300
ccagatgcac cagcaccaag taaagaaggt gtagactcgg cagtggcaag cacacgagga 360
ctacagcgtg gcgtaccacc aaggcctaac cttcatctt caacaacttc tgcaggcctt 420
gaaatacgtg ggctctttcg aggagtaact tcaccaacta ctagct 466

<210> 9977
<211> 451
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-A2

<400> 9977

attcacgggt cgacccccaa cccgcagtcg ctcatgttcc atcctggaaa gccggttatg 60
gaagttggga gctctgattt ccctaagtct cggactgcga tgacatcacc tttggcgaag 120
gcactgtttg cgatcgaagg agttacaaga gtattctttg gatctgattt tgtaactgtg 180
acaaaatctg atgagacttc atgggactat cttaagcctg aggtctttgc tgcgataatg 240
gatttctact catctggaca gccacttttc ctggactcaa ataccgcagc tgctatggac 300
acagcaattc atgaggatga ttcagaaata gttgctatga taaaagaact gttggagacc 360
cgtattcgtc cggctgttca agatgatggt ggtgacattg aataccgagg atttgagcca 420
gaaacaggaa tagtgaagct aaaaatgcaa g 451

<210> 9978
<211> 440
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-A4

<400> 9978

ttcacgggtc gacagcgtcg tcctctcagg cgcaggcgca gccggacttc gattacctgt 60
tcaagctcct cctcatcggc gactccggcg tcggcaagag cagtctcctc ctccgattca 120

catccgactc attcgaggac ctatcccca ccatcggcgt ggacttcaag gtgaagatgg 180
 ttaacattgc cggcaagaag ctcaagctcg ccgtctggga caccgctgga caggaacggt 240
 ttaggacctt gaccagctct tactacagag gggcacaagg gatcatcatg ggtatgtacg 300
 atgttactcg ccgagaaaca ttcaccaatc tctctgacat atgggccaag gaaattgacc 360
 tgtattcgac caaccaggac tgtataaaga tgcttgctcg aaacaaagtg gacaaggaaa 420
 gtgagagggc tgtcaccaag 440

<210> 9979
 <211> 433
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-018-Q1-E1-A8
 <400> 9979

ttccccgggtc gacgtcgtct cggagtctcg gcgcgtcgcc tgcggggagc aaggagccaa 60
 ggtgcgagcg ccgccgcagc gagctcgtcc ttccgaaggt tagcagcatc cgacagccat 120
 ggcgaagcat cccccgatc tcatcatgtg ccggaagcag cccggcatcg ccatcggccg 180
 cctgtgtgag aagtgcgacg gcaagtgcgt catctgcgac tcgtacgtgc gccctgcac 240
 cctcgtccgt gtctgcgacg agtgcaacta cggctcgttc caggggaggt gcgtcatctg 300
 cggaggggtc ggcattctcg acgcctacta ctgcaaggag tgcacgcagc aggagaagga 360
 ccgcgacggg tgccccaaga tcgtgaacct ggggagcgcc aagaccgacc tcttctatga 420
 gcgcaagaaa tac 433

<210> 9980
 <211> 443
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-018-Q1-E1-B2
 <400> 9980

gtccaaaatt cacgggtcga cacaatgat aagataccct ctgacatgcc ttgctatcat 60
 gaccgtgcaa gagtcaacac ccttcctact ttaaccaca tgggtgggcc ataaccaca 120
 gttccacagg atcaaaacct gactctcctg tacagccctg ttactaatgg ttatttccca 180

cgcttggctt catatttaat tcacgggccca ccttcctaatt gctctattct ggtatcagac 240
gcaataactta ctctcgttgc tctgaaaccc tttctcactc cggttcagac ttogagaaac 300
tatctatccg cttggaacct cttattgtac ctttgtacct taccctcgac atattttatt 360
ggttcaactc aagagatact cttatgctca ttcattgggtt aaccctagat tgtctctctc 420
ataagcattc tgtcgtagcc gag 443

<210> 9981
<211> 436
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B3

<400> 9981

tccaaaattc acgggtcgac tttcactgtg aatatcaaac tcattcatga cttatagaac 60
ctgtgtacac tcacaaacat atctgtccct taacctataa gtcttcaata caccaaaatt 120
actaaggggc actaaatgca cttacacttt caccaccttc ttaagtgtgg agttgttgcc 180
tatctagtga accttcgtca tttgtttcac tccatccctc tggatgtatg cttcgtgttt 240
cagctcgaga gatgttttaa tgactcacc cgtgagttga tcctgagttg tttgatcttc 300
gaggagatcg atccttctag agttttccct ttctctcgtg tgatcatgtg gttggagtcc 360
tcggagcaag acatcgagac aaagatgggtg atcgaatcaa cgttcttatg aagtggacct 420
ggattgtgaa gattgt 436

<210> 9982
<211> 430
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B5

<400> 9982

actcccgggt cgacacttca cctgagcctc aagctcaggg gcggtactat gatcaagggt 60
aagactctca ccgggaagga gatcgaaatc gacattgagc ccaccgacac gattgatagg 120
atcaaggagc gtgttgagga gaaagaaggc attcctcctg tgcagcaaag gctgatttat 180
gctggtaagc agcttgacga tgacaagact gccaaaggact acaacatcga aggtggctcg 240

gtcctccatc ttgtccttgc tctgaggggt ggttactagt taagctgtaa tggaaacgct 300
 tgcgtcctga gagaagtgac cattgggtggc atggaacctg tgttgcaaag agataataac 360
 aaactagctt tgcttagtgg gaggggctgt cttccatgtt atctgcctat atgatttgac 420
 aaaactactc 430

<210> 9983
 <211> 440
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-018-Q1-E1-B8
 <400> 9983

ttcccgggtc gaccggtccg tgcaactctt ccgcgccgac cccatcacca ctcgctattg 60
 tatgaagtac cggcactgcg acgggaagct cgtgctcaag gtcaccgacg accgcgagtg 120
 cctgaagttt aggactgata aagctcagga cgcaaagaag atggagaagc ttaacaacat 180
 ctttttcgct ctcatgactc gtggacctga tgctgatata agcgaggttt caggggaagga 240
 acaggcggag cagcagcaat caaagaaggg acggggcagg aggcagtagt atcatgttct 300
 gggtttcttt cagaaagatc acaactggga gtggtgggtg gatattttga tcgactcctg 360
 ttagccatgt tacaactgtg agtgggtgggt ggtctaagag tggtagtagt ttttctaaga 420
 caatgtgcgc catcgttgga 440

<210> 9984
 <211> 447
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-018-Q1-E1-C1
 <400> 9984

attcacgggt cgactcgacc tacatgaagg aaaatgagga acactatcct ggagtgaag 60
 acagttttgt tgcttgtgga gttgcagatt ttgttgggca gaagctcacc aactaaaatg 120
 atgaactcat tatacaattc tactccatgg cacacttcta tccagatggt aggatagttt 180
 ggatgtctga aggaacgaga taccagtcaa ccatagagga atgggcgagt ctgatcaatg 240
 ccccagagga gagtgaagat gacttggaca tttatgccaa gaagaaaatg gatcataact 300

caatgtcaca catgtacaag gagatccctg atgaagcact tgagattttc aagtttggat 360
cagttcattt tcttctgtca gggctgccta caatcaacta ggtcttaagg cacactcctt 420
tgcccaaata aggtgatcac aacatga 447

<210> 9985
<211> 449
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C3

<400> 9985

attcacgggt cgacttcac caaagcgaaa tccatcatct catcgaaaga cgggacacct 60
ttgcccctat caagtggat cagatttcca ggttgcctgg tgagatttta cagtttttcg 120
tagtttagat cgagtctgtt cttcatacct acagtccacg aaaaagccac aaaaaaaaaat 180
tagggtagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt ttagggtttt 240
gctttgttga atttggggt gcacgtcgt ttctagttgc tggctctaga gtctagtctt 300
ttagagtttc gagttctggt cataagttgt cacgccgcg ccgcaccatc atcatcacc 360
ctaccatcta gcaccaccgc ttatccgcca ccgcttcgaa tccgtatcca tataccaccg 420
ccgctgtcat ataccaccac cgctgccat 449

<210> 9986
<211> 443
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C6

<400> 9986

ttcccgggtc gaccaagcta gagcccatag tgacttgagg ttgcacatgt aaacttttgg 60
gcatgaagta ttcttccgtc tctttgagtc tgggtgaagc ttcccgcaag atgtcatggc 120
acttctccat gcagcccggc catccactgg ttgctctagg gtgcccacat aatccatcct 180
tcagccagta gtgtgtactg aattcttgtc atcctatctt gaattctcga ggtcctgaag 240
atgcagtcct tgtcgatgcc atcatggagt tgttgatcatt gaagtagagt cctccattct 300
cacaccactc ccgaacactc ataccaaccc cgtctactat agtgtagcat ttaaaactaa 360

acaatgtccc gggcttggtg tagcacggtg atgggttcct acctcatgca tactactcaa 420
ctacaaggat tcaattcact act 443

<210> 9987
<211> 449
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C7

<400> 9987

gtaaagggtcc agaattcccg ggtcgacaaa tggatgcagg acagggcatt tgggacgcgt 60
gcgattggtg agctcaacct agagtttgta gatgaactcc ctgtactggc attggatggt 120
gtggccatca tcggtggcat tgtgtatttg tctatcttcc agcgcgcgt tccaaagtgc 180
tcaggctggt tcctatcctt ctgcattgag acaaaggagc tgaagaaggc ctgccctatc 240
actcgcctcg aaacttccta cccctacgta atggcgtggc ctccctgttct ggtaggcaat 300
aagggtgaact ctctcggcta gaaggcgctc aactagtaag aggaagaaga aactagaac 360
tagaagtcgg tcattttgtc tgtactctgt atattacctt ttgttatcag atgatgggat 420
gttgctatgg ttctatgcat gttttcttg 449

<210> 9988
<211> 441
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C8

<400> 9988

ttcccgggtc gactgccacg agcgcgatat ctatcatctc atcgatagac gggacacctt 60
tgcctctatc aagtggatc agatttctac gttgctcggg gagattttac agtttttcgt 120
agtttagatc gagtctgttc ttcataccta caatccacga aaagagccac agtggattag 180
ggttagttca tcatatccga atcagtctga gccttcgcat aatcttttta cggttttgct 240
ttgttgaatt tgcggttgca tcgtcgtgtc cagttgctgg tcttagagtc gagtctttta 300
gagggttcgag ttctgggtaa aagttgtcac gccgacgccg gatgatcatc atcacacctg 360
ccatctacca ccagcgctta acggccatgg ctccgaatcc gtatccatga tacatcacca 420

atccgtgtcg atatacacca c

441

<210> 9989

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-D7

<400> 9989

ttccccgggtc gacaccaag cccaacattc gaagagttgt gtgtccaggg tgtgcttgca 60

accaagacaa caaaagagag atgggcttcg cagttgcatg tcggaatgca gttgtaattg 120

ggacaaaaaa gatcaagccc tccggttctg tctaaagagg gtgtacttgt aattgagata 180

aacatggatc gatctcgggt gagtattaag tatggacttg gccacgtagt agcttcgttt 240

gcaccgttgt ctaaaaaaaaa cttcatgtgc gccgggtcaac tgctgaacca acaatcgttc 300

atcaccagtt gactttttaa aataatggat ctaaaaaatt tgacaaattc caaaaagggt 360

catgattttg aaaaaagatt acgagtttga acaaagttca tggaattcaa aaaaagttcc 420

tggatttttcg aaaagagatc gcaaa 445

<210> 9990

<211> 446

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E4

<400> 9990

attcacgggt cgaccaaagg tggctggtaa gattatgcgc cggacggatg tctatatcta 60

cgcctacagt cttctcatgc gtctttctcg aagatttttg tttttcgctg agcttttttg 120

tcacatttcg ctgaggttgt cacacattaa tgtaatacgc tgggactact acaataacta 180

tgtatgccat ttctgtctac ttgatgttaa ccaactcaatg tctgcagtac attagtggca 240

tagttatgggt tggatttgcg aaatggttca cggccgctct aaacgattaa actgcactgt 300

ccgttcatgt aacatcatga ctcttcaata tggtcactta gactcaattc actggacgtc 360

tttttacaat gtcgtaagtg ggacaatcct gtagttactc aactttactc acttgcagca 420

gatccccctt tccccatctg acatta 446

<210> 9991
 <211> 443
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E5

<400> 9991

cgcggttgtag atcgctacac cctatagtga gtcgtattac atctccctcc tcgcctcgtc 60
 cgagaagccc aacgtcctct attcggacat tggaggatat gatatccaaa aacaagaaat 120
 tcgggaggca gttgagctac cattgacaca ccacgaattg tacaagcaga ttggtattga 180
 tccaccaaga ggggtgctgc tctatgggtcc tccaggcact ggcaagacca tgcttgctaa 240
 agctgtggca catcacacta ctgctgcttt tatcagagtg gttgggttcag agtttgtgca 300
 gaagtacttg ggtgagggcc caaggatggt tcgagatgta ttccgcttag ctaaagagaa 360
 tgccccggct ataattattca ttgatgaggt tgatgctata gccactgctc gattcgatgc 420
 ccagaccggg gctgaccgag aag 443

<210> 9992
 <211> 459
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E7

<400> 9992

acaggtccag aattccccggg tcgacgagcc tggcaacgct aggatggtgg gctgtgacaa 60
 ggagagcagt gatgatggca tgcaggaact tccactgcct gctaaacaac caaaagagga 120
 ggcaccgtcc gaaatgcaac ttaatttttag tgcaggctcag gaacaagctg atgactcaaa 180
 ccatcaagaa gcagcggcat cagtacgtgt agtcaacaag cctacgggca acgacggcac 240
 cactgggatc gcaggctggg acgaggagag cagcgatgag gaagcgcttg gctgcaatgg 300
 caaacaacc tgccgcacca agaggaaggg cccgttcaag aagagggtgga ggaagcctgt 360
 gaaagcccgg tcgctcaagt cactgatgat gtcgtagtgc ctgactctca taggtttagt 420
 agttagctca gcttagtctg ctccagtttt ggtgctgag 459

<210> 9993

<211> 443
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E8

<400> 9993

```
tcgtgggccc acgctactcc ctaaagtgag tcgtagaagt tcgcctacac cgcctaccag   60
gtcaaggagt gcgctgccgt cgggctcacc tccgagttcg ccgccgccgc gcaggccgcc  120
atgttgaaga aggccaacta cgctgccac tactatgagg ctaggctacc ggccggccgc  180
cccagctggg ggtcgctcgg ggctaaataa gtccatatat gcatgcacgt gtcgtgcatg  240
ttttcatgca gtttcccga tgccgcgcgc cgtgtcctcc gctatgcctt tatgtgtttg  300
cttgccgttt gatgatgcat gccatgccgt ctcatatata cgtagtgatg cttaatgctt  360
tgcttgcttt tcttatcttc gttggtgatg taagaataat ttgattgaag agttattagt  420
gaaagacata gtatgcacaa aaa                                         443
```

<210> 9994
 <211> 468
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-018-Q1-E1-F1

<400> 9994

```
cgctgcang tagcggtcgc aaattcacgg gtcgacaaaa tctcactga agctgatctg   60
tggaggttgg cacttggcag ggagctaagg agttgagaac tctgcctctg aatgctcgtc  120
caccataa catctctaga caaccatagc tttgtttaat cctccatttt taagagtttt  180
gtcctttttt tctgtttcta tggggtagtg gagcttttgc tgtgtttttg gtcagtagta  240
cagttaagcc agttttggca tttttttcta atacagaagt tagtaccxaa taatcatggt  300
aaacagcata ggacatcata ttggaattac ataatatagc atatagccta gctaatatcc  360
ttgtttacgc gatttcttga gaacacttgg gagttacgtg tcatgtctat tatccatttt  420
ggtaatacct tgtgattggt agaaagtaca tgatttttga tacataaa              468
```

<210> 9995
 <211> 445

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-018-Q1-E1-F3

 <400> 9995

 ctcactgttc aacacaacac cctatagtga gtcttattaa ggaggcggga cggcctgggt 60
 gctgctgctg cttggcggcg gcggggacga ggcacaggag ggaagaggag gcacggcctc 120
 gggcgctggt tggaggaaat ggatctggga ggatcccaag ggaagagga ctggtggcgg 180
 cggctgggag gatggaacaa ggctccta atttacgggt tggctctaaa atggacaagg 240
 gagtctatat atataaggaa cagggggggt tggatcatct gatcgaaatc agacggtcga 300
 gataaatacg ttaggtagcc caaataagaa aacggagatg ttttatagat gtttggggat 360
 gatccggacc catcggtaac gacagcccgg gtcgggtccg gaaaaatttc ggacacggca 420
 agaaaggctc tggttgtgta aagag 445

<210> 9996
 <211> 443
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-018-Q1-E1-F6

 <400> 9996

 ttccccgggtc gacagtcggg gtggcactcg ggtgcatgct cgccttgaca gtcacaaagg 60
 tcgcaataga gtcggtggag gctgtgctcg gcgacgctga gagagagtct atcaagcata 120
 agtccatgct gttgtggctg aagcgactta tggatgccga catgcttgaa gattttgaag 180
 atgaaaccga cctcaacctg gtatggattc tgtcgatttg gtcactatca atgttgatat 240
 gaatgatttt gtttaataac atattaatat ttttagataa tgaactacat ctaaaacttt 300
 tttttatgta gtgaagtaga tctgaacctc gctgttggag ttgatctttg agtcgatgtt 360
 aagtaaaagt tacatctact tgttgatgcc aagaccgcca tttcgttcct aaatgtccct 420
 gccttcttat gtttcaccaa tag 443

<210> 9997
 <211> 116
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-F8

<400> 9997

gacgcgttgt gcatcgctac accctaaagt gagtcgtatt aatcagcgcg acgggacaca 60
tttgccctcta gcaagtggca tcagatttct aggatgctcg gtgcaacttt ccactt 116

<210> 9998

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-G1

<400> 9998

attcacgggt cgacaaacat ctttatgagg cgaaaaaac ctggagagac tctgacggag 60
tagcaaaggt gcccaaacat caacgtttat acctgacaca ataggcaaac aaatgaatga 120
aacggtgcag tcgtttgaac ctcaaacgc agtcatttca gaatctcaag actgatgcct 180
tcgaccagct caagaccagc ggaaggagtt ggatcaaaaa agtgctcttt agtttgtggt 240
cggcatacac caccatgtgc aggatcacac aaggaaatct gttggagcaa aaccttgccc 300
tagctcttcc tcgagtctac ctctccctct ctgtgtcacc tcaactctagc ataaactgat 360
tagagaaaga agaaagtga gagttctttt gagaagtcgt ttgggaatat ttccggttct 420
gctaaaggaa gagagaatat cttcacctt 449

<210> 9999

<211> 421

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-G3

<400> 9999

ctcattgggtc gacgctacac cctatagtga gtcgtattac cctgtcacat gggccacccc 60
aagactgagt gaagataagg ttaggcaatg tgttgactca agacttggag gggactatcc 120
tcctaaggct gttgcaaagt ttgcagccgt cgcggcattg tgcgtccaat acgaagccga 180
cttccggcca aacatgagca tcgccgtcaa ggcgctccag cccctgctga atgcgcgagc 240
agccccacct ggggctgagc atgccggacg ctaagctcca ctccctgtat gatataatag 300

ataaggaaaa atgagccatc aattgttggt cttgcggggc gcgtggcagg cggtttttgt 360
acatttgtga ttattcttcc caagttgtaa ccctcgagat tctagtacca gaaatatttg 420
a 421

<210> 10000
<211> 441
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-018-Q1-E1-G8
<400> 10000

gggtcgacgg tgggtgatg ccatcgtcgt catgaagtta tcctcgggtg tgtgatgccg 60
tccccaaagt gagtcgctgt gacgccggcg gcaagacata catgaccagg tgcgttgccg 120
gtgcaagtgg agatccatgc cgcggtgaca ggcgctgtga cggcgtcatc cacagcgaga 180
tgccctgtgt ggtcttggtg ctgcgaaggc aaagtcatg gcaagagggt tgcaggatgat 240
ctgcatcaag attagaggag ttgacatgac aagattaggg aggtgaatgt taggattaat 300
cttgtctagc cgagctgaga gagtcagtta gtttgtagc tgcgtgaggg tcgtgtgcct 360
agagtgattc taggaggaag aagtgggtcaa gataagatta gatgggtgca tgtgaagtgg 420
cgtgagtggg tcagtttgtt a 441

<210> 10001
<211> 374
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-018-Q1-E1-H1
<400> 10001

ttcacgggtc gacgtccaga cgagagatag cggacaacgc atccctgcat gtcgaggctc 60
gccgctaaca tgtgggacca tgcttccatg atgcactgtg ctaatttaca catttgctgt 120
tgatatatcc agcctcttca acacaacgtc aatcaatgca tatgtgactg cttgttactg 180
acggtgactt catgatatgt tccggataca gaacgattga tcgatcattt tatggatgat 240
catcagccta tttgtcattt catctacgca tctacatgct ggactcatga ttctgataca 300
tttagtaatt tcgacgttca ggatcattca gttgtcattt acatcagccg caccatcaat 360

cattcgccca atct

374

<210> 10002

<211> 441

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-018-Q1-E1-H3

<400> 10002

ggtcgaccat gacaagataa ttatgcaacg tagggagtgg aggagactgt tcatgactcg 60
gtcatgacaa gattattatg caacgtaggg agtggaggag aactagctgc atctccagtg 120
gaaagcaggc aatcccttac aattgaatta agatcatctt ttttgtgggg attattatgt 180
aacgtangga gtggaggaga ctgttcatga gtcggtcatg acaaggttat tatgcaatgt 240
anggagtgga ggagaactag ctgcatctcc agcggcaagc aggtaatccc tttcaattga 300
attaagatca aattaggaag aggaacggtc caggctctga tagatgcgcc ttatgtgggg 360
cagttgaaaa caccgagcac attttttttc attgctcgct ggccaaattt ctttgagatt 420
gtattagaca ttggcttcat g 441

<210> 10003

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-H6

<400> 10003

ccgggtcgac tttaaaagtt gtgagggttc aagtccctct atccccaaat cctcttttat 60
tccctaacta tactatatta ttattattta tctctttttt tttcttttta tcaatgggtt 120
taagattcat tagctttctc attctactct ttcacaaagg aatgcgaaga gaactcaatg 180
gatcttatcc tattcattga atagatttct tttttattag agtatcggca agaagtcttg 240
gttattcact ctatttttaa gttttattta agtaaaccat gcacaatgca taggaactacc 300
ccccattttt caaattttaa atttgaaata cttaattaa tttttagtcc ttttaattga 360
catagataca aatactctac taggatgatg cacaaga 397

<210> 10004
 <211> 399
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-A11

<400> 10004

tcacactcta tagtgagtcg tattaagtaa cgaatacatt ggtcagaatc aaatgccccg 60
 aaaaccaaag gtttcctccg aatggtatca caactgacgc ttattcaggg cttaaaataa 120
 ggctaaaagg catatacgat ggacaacagg tcaataatcc ggtcataccc cttgttagtc 180
 acgcgggaca gagaaggcta cgttagccta cagatggtta agtgtttaag gacacaaggt 240
 taccctgcct ctttaagggt gtaaggggtt gcaaaaactc ctcgagccga cgtcggaata 300
 tcaagcactg catctctgaa gtacgatatc tatgccatag ccccttgatt gacttgacat 360
 acatttaaca caatggtgca tgtacctgac acctataca 399

<210> 10005
 <211> 410
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-A12

<400> 10005

gccacaccct atagtgagtc gtattatcca ctgtccgccca aaactttgtc tgacctaaagt 60
 gcactatcta gctatcataa gttttcaaag aaattgatgg cggcgggctca gcaacatcat 120
 ggcgaatggc aaagcttcta aaatggacgg gagagaggtg gtgacgcatg gctgggagac 180
 gtacagattt gaggaaatat gacgcatgag gtttcatatt aaaaaaatga tagcctttgt 240
 aagaaaagat atgacgtaca tttgtgcaaa ttgataatga catgcatgct atttctgaaa 300
 aaagaagctt ctctgttggc atccctgatg gtaccttttag atacgcagga agagaaatgg 360
 tgtctcataa ttcattggat gtgaccagta ggtcatatca tcatgttttg 410

<210> 10006
 <211> 419
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-C12

<400> 10006

tagtgagtcg tattaaacgc agcccacact tctctacaac aatgcagccc acatataaag 60
aacaatgcag ctccacttgac cataaagaag tggaaccaag cagtagacta aacataagat 120
aaagggagga taacaaagt ttcaataaaaca acctttatct gcaaaaaata gaagtgatgt 180
gaaatcaagg caacacttcc tcgatgttag ccaactatag agcatggcct ttctgatgta 240
gccaatgtgc tccaccccaa acttagcaac tcgaacacca tcccatgtct gcaagaattg 300
aaacatatag aatccacaat catgcctgca ataaaaagaa taaaaacttt agtttcacaa 360
aatgaacgg aaaaaacttg aacagtatgc catagaacgg ttgtacagaa cgcacccat 419

<210> 10007

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-D10

<400> 10007

gtcctcggta ctccctatag tgagtctagt acactccgat gcagaaccat acacatggag 60
gtttcactcg aagacctgct cccggggagc ggataccgca gagccaccg gacagtgttt 120
accagcctgt gcctccccctg aggatgccac cattcttgtg aagaaagacc atttctccca 180
tcgctgtgta tatcggggaat tatttgtttc gagagaggcc gagtttagac tgttgaaggg 240
taccgaaat gatgccactg gcgtgtgctt ggtgttttta gggttctctt gccagcggac 300
ctggatttca ttcaaattggc tgtggtgact tatgagatcg catatgttgc ggtggtcgga 360
attgtttgta aacgtttgcc gaaactgctg ccgttggaaca tgattgtgat gccattactc 420
attgccgc 428

<210> 10008

<211> 359

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-E12

<400> 10008

ctccctatag tgagtctatt aatcggacga gctcccggaa cgactgatcg gtgcgggttcg 60
aatgtcgcac atagaactat catctgcggg tggttctgtg cttgaggatt aaccaaatta 120
ctgctactat cgtccatttg gtccaagtgg tgcttgcaac gtcggcactc atctcctcta 180
tttcagtctt gacaagaaac agtaggggat acatatatac aggcagggaa tcaagcgttg 240
gcaccgtgcc atgccaacga catactgaac gcggagacac aattaacttt tatgtgtatg 300
taattatgta ttgcacatca tgattcggct acgtgatggc aatctcctaa gtgttagca 359

<210> 10009
<211> 455
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-029-Q1-E1-F10

<400> 10009

tgacggtccg aaattcacgg gtcgaccctc aggtatgcta cctcttttcg aaccataccc 60
ttgttctatt gccccatct gccacgtcgc tgcattgtga tctttttcca ctccaccatc 120
tccccaattt gctatcctct gctttgctgg tcacccagac gaaaacctta atttgacta 180
ttaaaggaaa ccctacttca tgcagactaa tccatgtctg ggataataag gaaagtaagg 240
aagaaagtat tgtcgaagag actaggtatc gaacccgcat ctaggttgaa aaggggaaaa 300
tcagtagcta aggaacgagt ctcgtgtctc ttgttttttt ttgacatggc cgtgtctctt 360
ggttgaaaag ggtagaaaga catgaaaatg caatagagaa tgaacaggtc aatcagtttg 420
ttttcctcac atangaaaaa ggtggctaaa gagaa 455

<210> 10010
<211> 328
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-F11

<400> 10010

actcgtagta caacataaca ccctatagtg agtcgtacta gccgccgtga agaagatgta 60
cgacatccag gccaaagaagg ttaacaccct gatcaggcct gatggcaaga acaaggcgta 120
cgtgaacctg acaccaaact acgatgctct tgacgtggcc aacaagatct gcatcactat 180

aaatcaagat ggactgtcct gcaactaggcg cctgtgtcct ggtctcctat gttactggaa 240
 ttatgtaatt gctacttagc aaaggggcac aatggctcca ttgcctacca tatcgccgca 300
 caatttcattg aacttgatgc aatctcaa 328

<210> 10011
 <211> 381
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-029-Q1-E1-F12
 <400> 10011

atagtgagtc gtatacacgt ctaatctgat tctgattttc atgttagttg ggggtgcattg 60
 tatcatcgct cgggtcccaat gtaactctga gatcttttga caaaaaaggt atatttgaac 120
 ctaataacac gcaatatacg gctgtctcag caagagcaac tcgagcgggc tgagagcagg 180
 aaaaaatcta ttttaaacc tgaactcata gacgttcagc atatcaaacc ctcaagtcca 240
 aatccacgtc gtttgcacct gaactatgca atctcggttt aattcgaaac ctggcatctt 300
 ttgaggaatg aaaacgctga cgtggccatg tcaatcgga ttcgtctgac tgggtgcacca 360
 ttgagcggca tcagtgatca c 381

<210> 10012
 <211> 453
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-029-Q1-E1-G11
 <400> 10012

ggtccgaaat tcacgggtcg acgataaacc aacacatacc atatcattaa aggcgtcagc 60
 gtgttgtgcc aaaaggaaac ctcaaggat atggagaaat agccaaaatt gaatacacgt 120
 gtacctcagg ccacttctc gagtagtaaa aaatagagca taaatattgc aagattttca 180
 aaggatanga acaacgctaa tttatagtgg tggaatacag atggtgcact gccgagccac 240
 ccatgtgtca tatatttgtt ttatgtgctt ttctatgata tcacgagcg tacaacaag 300
 ctcgtgggaa aaaaatgatg gcacatcca ccacgtcgaa aacaatacgg aggcataaaa 360

ctaagtgtgc atcatagtac gccaccaacc ttaagtcgag tgtgacaaat aagtaaata 420
aagctcttac catgtgtaca cttcaaata caa 453

<210> 10013
<211> 444
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-029-Q1-E1-G12
<400> 10013

actcattggt cgacgtata ccctatagt agtcgtatta tcaactggctt tccttttgtg 60
tgcgtctcga ttggcctcac cattgggaag attcccaccg ttggagttgt gtacaacccc 120
atcatgaatg agcttttccac agctgttcgt ggaaaagggtg cttttctcaa tggttctcca 180
attaaaacat cgcctcaaaa tgagttgggtg aaggctctta tggtgacaga ggtagggacc 240
aaaagagaca agtccacttt ggatgataca accaacagaa ttaataagtt actattcaag 300
attagatcta tacgtatgtg tggctctttg gctctaaaca tgtgtggagt tgcttgtggt 360
aggctagatt tgtgttatga gatcggtttt ggtggccctt gggatgtggc tgctggagct 420
ttgattctaa aagaagctgg gggg 444

<210> 10014
<211> 409
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-029-Q1-E1-H11
<400> 10014

caccggtccg agactcacgg ggtcacgccg atgaatacac tgtatcggag cacaacctcc 60
tctctgttgc atacaagaat gtgattggag cccgccgtgc ctcatggcgc atcatctcct 120
ccattgaaca gaaggaggag agccgtggca acgaggaccg ggtcacactc atcaaggaat 180
accgtggcaa gatcgaaact gagcttatca agatctgtga tggcatcctc aagctgctcg 240
aaaccacact tgtcccgtct tccactgcc ctgagtccaa ggtcttttat ctttaagatga 300
agggtgacta ctacaggtat cttgccgaat tcaagagtgg gcctgagagg aaggatgctg 360
ctgacaatac catggtggca tacacggctg ctcaggatat tgctttggc 409

<210> 10015
<211> 414
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-H12

<400> 10015

ccctcgccac tcatatagtg agtcgtatta gcacggattt gtaagcgtgc tcgagcttct 60
tgctgagatc atagtcttgc aggatgtcga tgatcccga gaagaggatc acgtcctgga 120
attcgcccggt gggctcgccg atgagcaggg attcactttc aggattttctc actatgtgct 180
ccacccttga gggcatgcta attcctagtt tttgttgtgc ttatctgcag caaccatgtc 240
agtgtttgtc agtatcaaca tgaacgcaat tcaaaagttg ccggcatgaa gtgagcaacc 300
taagctgagt aaacgaaaaa tgtaatgcaa agcatcttat gattcttcaa agcttctaaa 360
atgtatggtg tagatacctt ttttgccgag aatcttcac cgtggtagta agtg 414

<210> 10016
<211> 439
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-A10

<400> 10016

ctcacgggtc gacatcatcc tctatagtca gtcacataac acctgtcgag tccgctgtgc 60
tgtggatctc acgtacaatc gagactgggc ggcttgcgtc gcgtctgttc ataccacctg 120
cacagtgcag cgactcaact gccagtctgg catcacgac gcacacgaga ggacgacgac 180
gaagaatacg gccatgggag cttgcgatac tttgaaacgg tccaagtctt gggcgatgct 240
cacatgtcgt gcccactgtg gcctcaatgg tcagtgccat gagtgatgat gatgatgagc 300
gccttttggg cgcaggagaa gcatcacctg caagatgtta gtgagaacat ctccaacagg 360
cgtgcaacat gcggcgcgca actcattcct tctttgggag ggtctacaag ctgacgctct 420
aaacgatgca cacttacgt 439

<210> 10017
<211> 341
<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-030-Q1-E1-A9

<400> 10017

taccggtcca aaattcccgg gtcgacaatg atgagccggc aaaaggcaac aacaacaaac 60
ggagaaaatc cggggaagcc aagttaacaa ggcaacaaaa attccaagaa accaaaacaa 120
ggggaataac aaggtaaatt caaagtaaag ttaaggggaa ttatccggca aacaaaatgc 180
ctaagtagga caatcatttt gatgaccctt tagcagcgag tagtgagaac ttacctaatg 240
aagaagctat tcagttcacg gagcagcatg gtagcagaag aaagtcaacc tcaaaggggtg 300
gaacaaaaca tgtgcccaca ngaatatcag agaaaggtgc c 341

<210> 10018

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-B10

<400> 10018

attcacgggt cgacgaacat gccaaaagag cacacgattt gaggatatca cgagatatga 60
tggtgaacga gctccttata cgaggactca gatgaagaag ccttcggcaa gtagatctgg 120
aatggcatca atagactatg atcttgatgc tgacttctct caccgcaagt ccgggcatag 180
ttgatctagg cagcatgctt ctatggcata agcagcacct ttggactttg tcattcgtcg 240
atagtccaaa attgaccccg aatagatact ggctcgtgct aagcaacaag ttcaagacca 300
gcgccggctg acgatgagct agaaactgca gtagctgaaa acgccgaata agaaaaacct 360
ccaagcttcg aagcttattg ttgaacggcg tgggatggtc aaatacctgt aagctagaca 420
cccccgacag ccttgcgatg catatgattg tgtgc 455

<210> 10019

<211> 400

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-C11

<400> 10019

gccataccct aaagtgaatc gtattagggc agcactgggg accggcaagt cgcgagttct 60
 tacctcgaac gcgtcattct ggcaaaccat gataaggata acttcctcgt gccttacttt 120
 cccgagtaag tcctcccctc aaccgccccg tatcatatga attcttagat ttcgatcggt 180
 tttctttaaa cattctgtgt tttctgaagt gacacacatt gcacgctcaa cctcctaagc 240
 cccaaatatt ccatggccac gtatttcgaa cgggaccgcc aatcaaacgt tgactactca 300
 aatgtcaaca aggttcttga tgatgttctc cacggctacg tcaaactctgg aggcaccttc 360
 accaggccta ttcgtacgta cggcaagcat gtgttctccc 400

<210> 10020
 <211> 444
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-030-Q1-E1-D11

<400> 10020

ggtcgacgac gctgagaaaa tgggacctga ctacatggat gttgaaagtc tcaagaagat 60
 gaacaagaac aagaagcttg ttaagaagct agccaagaag taccatgctt tcttggcatc 120
 agaggccata atcaagcaga tcctcgtct ccttggccct ggtcttaaca aggcaggcaa 180
 gtttcccact ctggttagtc accaggaatc tcttgaagcc aaggtcaacg agacaaaagc 240
 tacagtcaag ttccagctaa agaaggttct ttgcatgggt gttgctgtag gcaacttgct 300
 gatggacgag aagcagatcc aacaaaacat ccaaatgagc gtcaacttcc ttgtgtcnct 360
 cctgaagaag aattggcaga atgtgaggtg cctgtacgtg aagagcacat ggggaaacgt 420
 gtacgtgtgt tctaagtgtg tgcg 444

<210> 10021
 <211> 452
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-D12

<400> 10021

cacgggtcga cattgacggg aaggacattg catcaactcc ggattcaaag caggctacgg 60

aatcttcgaa acttcctgtg gaaactgctg ctgcatccac tgcggtgccc cctcatgcag 120
acgtgtacca tttaggcagc cagtcacagc gttccgcctt ggctagccaa aggtccgggc 180
agctacagag gccaatccag aaatggaaag gccccgacaa gatcagcagg atctatggtg 240
attggataga cgaaactgac taggaagagg agcgccgtgt ctgtctcctt taccagttt 300
agttctagtt ggcatgcaa aaacctagtg ctggaagagt ctgcgtggtg taagactaaa 360
acattatgct gccgcaactt gtattgtgtc tgttgtatgc tgattgcagt gaactcggcg 420
ctgggagagc tgtatggatg gtagtgttct gg 452

<210> 10022
<211> 354
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-031-Q1-E1-A10
<400> 10022

acgcctgccg gtactgggcc gacattcneg ggtcgaccgg aatcgtcggt gtccctggat 60
ctggatttgg ccaggttctt ggcacatggc acttcagggtg cagcatcctt ccgcaggagg 120
agaagatccc ggcgatcatc tcccgttca cggtgttcca tgagacgttc atggcagagt 180
accgtgacta aactggtgta acatgtgtgg gattacatgc aagcctcgtg gattttccct 240
aggcgttttt gccccggtt acagcagtat catgtagacg agacaaaata aagcaaattc 300
atggccttggtg tgtgtgatat actatatcag attccgaaac agatttacag tcag 354

<210> 10023
<211> 429
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-031-Q1-E1-A8
<400> 10023

tccagaattc ccgggtcgac ggagagcgcg gacacgaaga tggacgcgtg gctggacgtt 60
gacatgagga ttgctagcca ctcccggggc ccctcctggt atttcttctt ccaatatttt 120
ttaataattt taaaataaat ctccataaat ttttaggtca tttggagctt ttcggagaat 180
agctatctca agtgtaactc ttttcagggtc gagaattcca gctgacggca attttcctct 240

ccatataaat cttgcataat aagagagaaa agacattaaa attgcatcat aaagtgaaat 300
 attgacccaa aacattataa atatcagtag gaaaacatga tgcaatatgg ccgtatcacc 360
 gttggtgtac cggagcataa ggctttcgcc tgaatccatt cacgcaccac actgaggaag 420
 ctogaacac 429

<210> 10024
 <211> 441
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B7

<400> 10024

tcgcgggtcg acatgacacc ctatcgtgag tcgtatgagg tcggagagtt ccgacctatg 60
 atatttgagg aagtaccta tggtactagt tttagagggg tggtagtata tgttcatgga 120
 ttttaccctc atgcgggggg aacagttgtc cgacctggga gatttcctgg ccacattaat 180
 ggtgtttacc aactgggtga ttttacatac cttgacggag acttcacatc tgagtctgga 240
 acgtctggtg gaccagttac catgggagat agagttattg gagtaaatgt gcaaagtgtg 300
 ggaggatcga gatgcgcggg tccccctctg aactataca tgacatttat gaattggtgt 360
 ggttttaatg gcggtatacca tacaattgct gcgatgatac aacgccttgc tgctaataca 420
 gttttgcaat gtcaagcatc a 441

<210> 10025
 <211> 473
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B8

<400> 10025

gtaccggtcc agaattcccg ggtcgacttg atgatgtcaa ttgctcaagg actgattttg 60
 gcgtccctgc cccgaatatc tcaattgctg catggcactc caaaaatctt gtgcaagtcg 120
 tctggggtaa acactatttc ctggttggcg gttgctgtcg atgacgattg taagcatgcc 180
 gtcagtgtat ctggtttgac catacaaggc cgacgagcgc aaggatgccc acacactcat 240
 cttgacaacc atccatgtaa tcggcatgca cagggcgcct gaaagtccac ttgctttgac 300

catggatgca caacccaaaa ttttggctctg caccagtggc agtagcagca gagaaaacat 360
gatttagtgc aacggaagtt catttcataa tgatccgtcc aaattacatc agccaaactc 420
ttacgactta atcaacggac gcgcgcgcgc aacacgtgat cgtccctcgt cag 473

<210> 10026
<211> 408
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-031-Q1-E1-C11
<400> 10026

acgcctgccg gtattggtcc gagcattcnc gggtcgacag gctgaacgtc attgaccaca 60
tcaaggetgt caaggactcg ctgcacctct gtgccgccgt cgaggatgtc cagatgctgg 120
cgtttcatgt ttcgtcacga gcatcaagat gaagaagtcg gaagaagcat agtccaagct 180
catcggagct agttcaagga gtaatgaagc ccttgatgct gatccgtatt ggaacaaatt 240
gaagcacgaa ctgtgacata tagagcttgt tatactgtag agcttgatgc tcatcggctc 300
atgtgacata ttgtacatct gtagagcttg ttatattgtg atcgcatttg tatgtgctga 360
tgtaacagat tgttgcttct tgttatttga agtattacac ctgtttac 408

<210> 10027
<211> 448
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-031-Q1-E1-C6
<400> 10027

aattcccggg tcgacatctt cctggaccac ctggccacca tccccatcac tggcaccggc 60
attaaccag cgaggagcct tggcgctgcc atcatctaca acaaggacca tgcctggaat 120
gaccattgga tcttctgggt gggcccttct gtcggcgctg ccctggcggc cgtctaccac 180
caggtgatca tcagagcgat tcccttcaac aagagcaggt cctaagccgc ctgcctccg 240
ctaccaaag ctgatcggga ataacgagct tctttgtgat gtcttgtttc gagcgcctag 300
taccgcatcc gccgtcgatt ctctgaaga tggtctctcc tgactgaatc cagacttacg 360

tgtgttaaga ctccagtgtg agtgtgtgac agttgtgtgt gctctcattg tggaagattt 420
aagttataat ttgttgatgt ggcttccc 448

<210> 10028
<211> 464
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-C8

<400> 10028

gtacaggtcc agaattcccg ggtcgacatc gagccagatg cgcattgtcaa gcaggcgatg 60
aatgagatca atgcagctgc aaggatgagg gtggctgcaa acgagaaggc ggaggctgag 120
aagattgtcc agatcaagcg tgccgagggt gaagcagagg ccaagtacct gtctggcctc 180
ggatatcgccc gccagcgcca ggccattgtg gatggcctga gggacagcgt cctgggcttc 240
tcagtcaatg tgcctggcac cactgcaaag gatgtgatgg acatgggtgct gatcaccag 300
tacttcgata ctatgaaaga gattggcgcg tctccaagt cctcggcggt gttcatcccc 360
catggccctg gtgcggtgcg cgacatcgcc acgcagatcc gtgacggtct tcttcaaggc 420
cagtctgcct ctgacaacta gcagtttgct tcgcgggcat gaac 464

<210> 10029
<211> 463
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-D5

<400> 10029

ggtccagaat tcccgggtcg acctgctggt ggagggtgctg gcgggtgcac gtagctttgg 60
ttttgatcaa cctcatcctc ataatcgccc gcatactcat tctctcctg ggtaccagca 120
gcagcagtag caggagccaa agaagcatca acaacaggga tagcagcacc agaagtttgg 180
ccaccctcaa gaggaacacg cttcgctcgt ccatactgat tcgaaagggg cgttggtgtt 240
gttggtgcag caatgcgata ggtgcagccg gcggtggttg tggaaaatgc gcgagcaatt 300
cattgaactt gctatcaagc tatgtttcga acgtcttctc aatgccatct atcttctcca 360
tggcctcgtc aaatctatct agcacatctt gcacctgtcc actcatcatt tgctaaaatt 420

tatcatgtag ttgtttgttc gtcaggttct cccaatcaat ctc

463

<210> 10030

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-D6

<400> 10030

gtccagcatt cccgggtcga caaggcacag cagatcgagg atgtgaggaa agccctctac 60

gcctccaaga tctgcagcta cgcccagggc atgaacatca tcaaggccaa gagcacggag 120

aagggatggg gcctcaacct cggcgagctg gccaggatct ggaagggcgg gtgcatcatc 180

cgcgccagct tcctcgaccg catcaagaag gcctatgaca ggaacggtga gctcgccaac 240

ctcctcatcg accccgagtt cgcgaggag atcatggaca ggcaagccgc atggaggagg 300

gtcgtctgcc tctccatcaa caacggcgtc agcaccctg gcatgtccgc gagtctggcc 360

tactttgact cctac 375

<210> 10031

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-E3

<400> 10031

cacacgctat actgagtcgt attacgagc ggatcatcacc gatgatggc tcaaccgaca 60

attactcccg caaggcgtag ccccttgac accctgagaa gctactggc gtcgagaagt 120

ccgagccgag cgcgatccat gctaccccaa caacaactcc tccaacgccg tcaagaccga 180

cgaggcacga cggcgagggc aagcgcgcc accgcaaagg ccacgctact tgcggcgcgt 240

gtaccgacga ggacacgggc tctgccgccg cccacacaca cacatcgcca tcatcatgca 300

tggagaacgt gaagcgaaga cgacgaaaac gaccacacaa ctcaatcgaa ggtatcctgc 360

ggagcaaccc gcgggagtaa ttaaccggga gccttccgaa gccccgggaa ccaggagatc 420

acacaatcgc cacagtc 437

<210> 10032

<211> 430
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-031-Q1-E1-E5

 <400> 10032

ggaactctat agtgagtcgt gctacagttt ccggtggggg atgatgaaac catgtgtggc 60
 tactcgatgc ctaatctcac agaattctct tgatgaacgc tctcctagtgc tcagtactgc 120
 tgtatcttgt ggatgctaac aacgattttc agtacatggg actgttgtcc gggtcgagga 180
 aggtttacgc ccagcggacc tagatgtgct ggatgtttta gactgtagaa gacgacgcat 240
 cgcgtgctga atgaatgttg ctgagactct agtatcgagc tgtgttgacg acgccgactt 300
 gcttgggctc ccggttgtaa atttgctacg ctacctattg atagagatgg ttttcttggt 360
 gaatttggat cttgctgggg ttgtaatttc atcatgagag gaaatatctg catcagtttt 420
 ttgctagtag 430

<210> 10033
 <211> 429
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-031-Q1-E1-E8

 <400> 10033

ctcccgggtc gacatcaaac catatgcgca tgccaagcaa gcgatgaatg agatcaatgc 60
 agctgcaagg atgaggggtg ctgcaaacga gaaggcggag gctgagaaga ttgtccagat 120
 caagcgtgcc gaggggtgaag cagaggccaa gtacctgtct ggcctcggtg tcgcccgcc 180
 gcgccaggcc attgtggatg gcctgagga cagcgtcctg ggcttctcag tcaatgtgcc 240
 tggcaccact gcaaaggacg tgatggacat ggtgctgac acccagtact ttgatactat 300
 gaaagagatt ggcgcgtcct ccaagtcctc tgcggtgttc atctcccatg gccctggtgc 360
 ggtgcgcgac atcgccacgc agatccgtga cgggtcttct caaggccagt ctgcctctga 420
 caactagta 429

<210> 10034
 <211> 448
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F5

<400> 10034

ttcccgggtc gacgaggcct tccaagctaa gtatgatgtg aagccgaaca atgccattct 60
tgccgaggac aagcacttgc ccatgtacga tgagttgtcc agcaaggaca atgttgaata 120
tattgctgga ggagccacgc agaactctat cagggttacc caatggatgc ttcaaactcc 180
tggtgcaaca agttacatgg gttgcattgg aaaggacaag tatggtgagg agatgaagag 240
cgccgctaaa gctgcaggag ttactgctca ttactatgag gatgaggctg ctctacagg 300
cacatgtgct gtctgtgttg ttggtggcga aaggtcattg attgcaaact tatctgctgc 360
gaactgctac aaatctgagc atctaaagag gccagagaac tgggcactag ttgagaaagc 420
gaaatacatc tacattgctg gcttttttc 448

<210> 10035

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F7

<400> 10035

ggtccagaat tcccgggtcg acgagcggcc gtatTTTTTT tttttttatt ttttttttgg 60
aaagcatatg cccttaacct acaacaatt gtaacaaatt tggctctaga ttcagtcgtc 120
aacttccaaa cccatgcaac aaaacatc agatccatac tcaattctat agcaacaata 180
gtttaggcgg agtacaatcc aagcaaaaag tgtttaaatt ctagcttcac gggattcctg 240
atggggcaaa atccagacct agttggccga ggccctgttc ctgggggcag cctcgggtacc 300
ttctctgaag ttgctcttga acctgcgagg caggtggcgc atgtacctca tccttcagtc 360
gccagtgtc ttgcgcctga tggccttcac actccagttg tacttgcgga tgcgggcggc 420
ggggtagccg caggaggagc aggtgctc 448

<210> 10036

<211> 377

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-G10

<400> 10036

ttccccgggtc aacgagattg tcatactggg gcctgtaatt ctacacaata tgttccccctt 60
tgagagggttc atgggactcc taaagaaata tgtccgtaat cgcgctaagc cagaaggaag 120
catctccatg ggccatcaaa cagaggatgt tatcgggttt tgtgtttact tcaatcctgg 180
ccttaacaag atatgtctcc ctaaactcgc gtatgaaggg agactgactg gaaaaggcac 240
tcctggaaga gactcaataa tatgcaggga cggatattct tggctcaag cactactacac 300
agttctacaa aactctacct tggtgacccc gtatgtcgat gaacacaaga acagtctacg 360
ctccaaacac ccggagc 377

<210> 10037

<211> 237

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-G5

<400> 10037

gtacagggtcc agaattcccc ggtcgacaag agtgtggact tcgaccgctc cagcgctccc 60
aaggatttcc aggtcagcgg gtggtaccaa ggagcagacg acgattcaga caagcaaaca 120
agcacggcgg caagcctaag ggagttcaac ttagaactcc aaaagagcaa cggccaaacc 180
ttccaactag acaggaacaa cggcgacgca actgtgggca acaatggccg ggtcgaa 237

<210> 10038

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-G6

<400> 10038

ttccccgggtc gacggcggag cagaatccat cgacggcggc agaatccaac ggtgggaggt 60
cactggtggc gagaagatga ttcggagacc cgaggaggca gagcaggata cccgcgggct 120
gaggggattt gaagtaattt caaaaatctc acccggtgggt atttatatcc cgaccctgtc 180
agtgtgaccg agtggaaaca ctcggtggca ccgagattgc agaatcgcaa gtggttgctg 240

caactcgggtg tgaccgaagt gttcaaactcg gttggaccaa tatgtaaacc tagatcaact 300
tagtgatctt ggtttgaccg aaatggatgt ctcggtcaga ccaaaatgca caaagagggt 360
ttggaagttt aagtctatga tgaatcgggg actctgagtg ctcttcacac agagtgggtc 420
aaatctgact tgatcaaact ttgtgatg 448

<210> 10039

<211> 453

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-G8

<400> 10039

cccggtcgca caacaaagat aaagccctga gtgttctgga agtagtcct ccacaaaggc 60
cttatctgtt ttgaaaatgg catacataaa tcatcagctt ttctttacat aaatagactt 120
ttgtcaatga aacacttttag taactgcaa caggtgatta gcattttatt catgtgacga 180
caaaaaagga aataacagcc aaagagtaaa ccaagaagaa aaaaatagca aaatcctaac 240
cttgtcctgg ccaccaacat cccaaacagt gaagctgatg ttcttatact ctactgtctc 300
cacgttgaac ccgatgggtg ggatgggtgg gacgatctcg ccgagcttga gcttgtagag 360
gatggtggtc ttcccggcgg cgtcgaggcc gaccatcagg atccgcatct ctttcttggc 420
gaacagcgcc ccgaacagcg tcccgaaacga cag 453

<210> 10040

<211> 390

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-G9

<400> 10040

tattggtccg gacttcccgg ggccacggag aagaagcaat tgaacacgat gcgggagatc 60
aaggtgcaga agctcgctct caacatctcc gtcggcgaga gggcgatcg cctcactcga 120
gctgccaaagg tggtggagca gctgagcggg cagtcgccag ttttctccaa ggcgaggtac 180
actgtcaggt ctttcggcat tcgtcgtaat gagaagattg cctgctatgt gacgatcagg 240
ggtgagaagg caatgcagct tctcgagagt gggctgaagg tgaaggagta cgagctcttg 300

aggaggaact tcagtgcacac tgggtgcttt gggtttggtta ttcaggagca cattgatctt 360
ggcatgaagt atgacccatc aaccggcatc 390

<210> 10041
<211> 471
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-H5

<400> 10041

gtacaggtcc agaattcccg ggtcgacaag cgatagtgcg cgagcagttc ttggcgacgt 60
ttggcgacgca cccgacgaag ttgacgggtga ccaagttgta caccctaaac gggccgagat 120
tcaccttcaa gaactccgcc ggcggcgagg ccatgctgga ggtggagtcc cgcattgggt 180
tcatgagcct acgctcacac caattcctcg acgccacatc agcccaaccg gtgatccatc 240
tccaggagac cggccttgag gagcgtaagt gggaggcgta caggggcaac agcacgagag 300
aaagcgacaa gatcttcgac gccgtgaaca agtcatggta tttcttcctg atggggacca 360
agatcgaagt gttcctccgc aagtccctcg acgagccgaa accagcaggc gtcctcgctg 420
atggcaactc ctccggcggc atgcagaaac cagcagactt cgtcgtcctt g 471

<210> 10042
<211> 446
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-H7

<400> 10042

aattcccggy tcgacatcgg aaggaaagtc atccatggaa ggcactcagt tgagagtgcc 60
aggaaggaga tcgccctgtg gttccctgaa ggcattgcag aatggaggag cagccaacaa 120
aactggattt atgaagccca agaagtgtca tgagtggttt gagtgcaggc ttcattaagc 180
atctacaaaa ctagtctttg gttgtttaca gttttgagat ttgtatcttg ggaaccttgt 240
ttgtgtgaac tgaagatata tccttgtgct tgagcatgca agcgttatct gctgctccat 300
atctgatata tggtaatgag ttgcatttca tgttttaaaa agaaaaacag cgacggattg 360
ggcaagcgag tccggcaaga aacacaaatc ccaggggaga taaggccaaa aaaaaaaag 420

cggccgccct aaagggatca agctta

446

<210> 10043

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-A11

<400> 10043

attccccgggt cgacgctcca tttggctctg aggcttaggg gtggaactat gatcaaggtg 60

aagacactta ctgggaagga aattgagatt gatattgagc ccactgacac aatcgacaga 120

atcaaggaac gtgttgagga gaaagagggt attccacctg ttcaacagag gctcatctat 180

gctgggaagc aactcgctga tgacaaaact gctaaggact acaacatcga aggtgggttca 240

gtgctccatc ttgtgcttgc tctgaggggc ggctcagtaga tgcaacctcg acgtggaccg 300

taaaggccat ttctaccaga acttgtttgc agacctagat ctgtgaattt gccggttgat 360

tgaagtgcc tgaattgac gcatttgtga agtcagctgt cacctgtact tggatggaat 420

tgtttgaact atatgcttgt ccg 443

<210> 10044

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B10

<400> 10044

gtaccagtcc agaattcccc ggctgacagt ccagtgcgct aatgggtgct cctatgctgg 60

tttcgtgctg tgacagagaa gtcagagctg cggtcagcga cgccattgcg gcaacgatga 120

ctccatgagg gtgggttttca gcgggcgggt ctctccgggt gttgcgttgg actaggtcgg 180

tgcgaggcgt gcaactttct catgtgaagc tcttcagcaa aatcggagct gtcaagtcct 240

cgacgcttcg gtogattgtt tggcgtttgt ggccaggctg tctgtgtgtg ccccggtggg 300

gttgtaatct aggtttttcac ccggttttcc gctaattaac cgggcaactc tcttctgctt 360

aatcaatgaa aatggcaaat cttttgcctc gttccaaaaa aagaagtaag aacaaaaaaa 420

aaaaagcggc cgctctagag gatccaagc 449

<210> 10045
 <211> 447
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B11

<400> 10045

attccccgggt cgacaaatga aacacgtaat acatcaaaaa ggataacatg atataattca 60
 catatatggc gattgggctaa acaacatgac atttcataat tcacatatat aatgcattta 120
 taaaaaattg aatatatcat ttgaaatatg ttaaaaaata tatttgaaaa aatgtcagtc 180
 aagcaattga aaaatattaa aatgttatta aaaatgctat tcttttattt gaaaaaaatt 240
 aatgaagcat ttcaaaatat taaaaatatc tatagaaaaa aggttgacca tgcattaact 300
 ttttttatct tgtatatgag aaatgttgat aaaacatttg aaaaatgttt aaatgtatat 360
 gagaaatgtt gattaaatgt gaaaatttta aaaatatcta ctgaaaaaag gttgaccaag 420
 tattataatt gttaaacttg tatgtga 447

<210> 10046
 <211> 434
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B9

<400> 10046

attccccgggt cgaccgcgtc cgggagttcg ccaaggacag cgttcgcctc gtcaagcgct 60
 gccacaagcc cgaccgaaag gagttcacca aggtggccat tcggacggcc atcgggttcg 120
 tcgtcatggg ctctcgtcggg ttcttcgtca agctcatctt catccccatc aacaacatca 180
 tcgtcgggtc cggtgatct cgtctccgca ggtgaggggc cgcaggacga gaggatgggtg 240
 tccattcatg gaggcggcgc tggttttctt atcctcgtac cttaaagcaa ttcatttagg 300
 acttcattgt agaggacagt tcccttggtg tttcatttga aacagttgta ttggtagacc 360
 tggagcagtt ttgaacctga ttccggctag gccgtaatat caagcagtga atgacaagaa 420
 ttgaaaccct aaca 434

<210> 10047

<211> 441
 <212> DNA
 <213> *Triticum aestivum*
 <223> Clone ID: LIB31-032-Q1-E1-C9
 <400> 10047

ttccccgggtc gaccatacat taccgagggg gcagcagagc cttgtcacat gggccacccc 60
 aagactgagt gaagataagg ttaggcaatg tgttgactct agacttggag gggactatcc 120
 tcctaaggct gttgcaaagt ttgcagccgt cgcggcattg tgcgtccaat atgaagccga 180
 cttccggcca aacatgagca tcgtcgtcaa ggcgctccag cccctgctga atgcgcgagc 240
 agccccacccc ggggctgagc atgccggacg ctaagcacca ctccggcctt ttgtatgata 300
 tagataagga aaaatgagcc atcaattgtt gttcttgcgg ggcgcgtggc aagcggtttt 360
 tgtacatttg tgattattct tccaagttg taaccctcga gattctagta ccagaaatat 420
 ttgattcttt gtatcgggtg c 441

<210> 10048
 <211> 436
 <212> DNA
 <213> *Triticum aestivum*
 <223> Clone ID: LIB31-032-Q1-E1-D10
 <400> 10048

attccccgggt cgacgcgatg gggttgccgt tccaagacgg ccatctgcat ctgaacaccc 60
 aggctcaggt ccagctggga catatgctgg ctcagtccta tttaacttat ggtacattca 120
 aacactagtt ctccctgtac ctccaaagag atccattatt tttttgttct ctactttagt 180
 taatttcctc tctgaactct tggttgagca cattggattg ggtataaaca tgccaatgta 240
 attcagtaca agttctccat gatcaatgag tacggagAAC ctccggaatc ttgcagcttc 300
 ataatggaag ctgctccctt tttgcctatt acgtttgaga atcatagcaa ttctagtgat 360
 tgtgcattgt aagcataata agaaaagtca tctagcacac agagtgggtac tgaatttgag 420
 ataatgcatc gataaa 436

<210> 10049
 <211> 439
 <212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-032-Q1-E1-D11

<400> 10049

```
cccgggtcga cacgagtgtg gcaaacgacc ggtctaacgc tgccaaggat ttccagggtca   60
gcggatggta ccaaggagca gaaaacgagt cagacaagca accacgcacg ccgacaaacc  120
tggggggagtt cacttacgac ctcgagaaga gcaacgccc aaccttccag ctagacagga  180
ccaccgccga cgcgtcggtc gtcaacatgg tccggctcga cttctcctcg aaccacgggc  240
agcctgagct gacgtgcac caccgcttca ggggtgcatt gagcgagcct ggctctctcg  300
gcactgcggc atcgtgaggg ctgatctagt tagtacctgt gtgcctggga ccatacggtc  360
tttctgtttt agctttgatt gaagacttga agcccctgag agacagtagg ttcaagttga  420
ttctaattctg tancataat                                     439
```

<210> 10050

<211> 280

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-032-Q1-E1-D9

<400> 10050

```
gctgtctcat gtaccgtggg gatgtttgtt ccaaggatgt caacgctgct gtggccacca   60
tcaagaccaa gcgcactatc cagttttgtt actgggtgcc cactggcttc aagtgtggta  120
tcaactacca gccaccaggt gttgtcccag gcggtgacct tgccaaggct cagagggctg  180
tgtgcatgat ctccaactcc accagtgtcg tcgaggtctt ctncgcatt gaccacaagt  240
ttgacctcat gtacgccaag cgtgccttcg tccaactggta                               280
```

<210> 10051

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-E10

<400> 10051

ttcccgggtc gacgagattg tcaatccggg gcccgatat ctacacaata tgttcccctt 60
 tgagaggttc atgggagtc taaagaaata tgtcagtaac cacgctaggc cagaaggaag 120
 catctccatg ggccatcata cagaggatgt cattgggttt tgtgttgact ttattcctgg 180
 ccttaagaag ataggtctcc ctaaatcgcg gtatgagggg agactgactg gaaaaggcac 240
 gcttgagggg gactcaataa tatgcaggga tggatattct tggctcaag cacactacac 300
 agttctacag aactctacct tggtgacccc gtatgtcgat gaacacaaga atagtctgcg 360
 ctccaaacac ccggagcagt gtgacgattg gattacatgt gaacacatca ggactttcag 420
 cagttggttg gaaacac 437

<210> 10052
 <211> 453
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-032-Q1-E1-E12
 <400> 10052

taccggtcca gaattcccgg gtcgacagcg acccgaagac tcaaagtctg ggtctgcatg 60
 cggtcagcgg ctcggggaag agggacctga gaaagcacga gacagagtct gccggcgctg 120
 gaaatcatca ccgactaggc cggcgagtc cacatacaga gtcaaccccc aggccccagg 180
 atggacgaaa aggttgact gaacctgctg atggttgga gacggagcta tctagcctgc 240
 ttggttgctg tgggtcacat ggtgccggac gacttgctgc tgagcacggg ctatctgctg 300
 agtgctcatc ctctcagat atgagcgatg aaagttgaag aagcgacaca gccgagcctg 360
 cggaaaaatg cagacctata gactgaaact cgatatcacg cttggagcct gcaagatgca 420
 agaactatgg tgttgagggt caccgccga aca 453

<210> 10053
 <211> 407
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-032-Q1-E1-F10
 <400> 10053

gtaccagtcc agaattcccg ggtcgactca accatatcgt tctctttggt ccattgtcga 60

acccctcagt atcctcttctg gctggaaact gcagacaacg tttgccgtga aaaggagtat 120
 ccttcacaag agagctacgt ccatctgatt cacccttgcg ataattcttc atcacaagagg 180
 atatgtaggc tggattgaga cgcattggata tcccatcttt aactcgcacc agtcctctca 240
 ctgcttttctt ccacatgtca acagtgacaa tccaagcctc agcatcgcga tagtcccact 300
 tggagaggag gcanacataa tcgccacaga ggatcggaca agctgtttgc atgtcgtctca 360
 taggcaactt tttagctcta gaagatgggt tcaagttctt ggggtggc 407

<210> 10054
 <211> 426
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-032-Q1-E1-F12
 <400> 10054

gtccagaatt cccgggtcga ctgcctagg gtttctggat caaggaggta tttatagagc 60
 gaacaggcgg tgcgggaggc caccaagcgg ggcacaacc accagggcgc gcctgggtcag 120
 cctgtgcatt cgggtttttt ggtttgattc ggtttggttc atacggtttt tggtttatac 180
 ggtttttata ctttggttta tatggtttta tacgaagata tgggtccggtt tcggttgcaa 240
 ccgtttgctt tcggtttggc ttccgtaata accatattaa ccaaagttga cgcgaatatt 300
 tgaatggaca cgaaacattt ttggtcacat gatttggtat ctgcatgtag ccatgtacct 360
 aagatttttc ttgtaagaaa tgctacgga tattagatca ttattagatg gcagtggcac 420
 acatga 426

<210> 10055
 <211> 439
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-032-Q1-E1-G10
 <400> 10055

aattcccggtg tcgacacatt attgcctgaa gatgcttggc tattgctcaa gaggcaggta 60
 ctctcaagtg agatagatga agattacaca gatacgctaa aggatatcgg attgaaaatt 120
 atagaaaaat gtggttattt accacttgcc gttaaagtaa tgggaggatt attgcgtgaa 180

agaggagggc tacgtcgtga ttgggagcat gttttggatg attctaaatg gtcagtaact 240
 aaaatgcccc cagagatcaa ctatacagta tacttaagct atgaatatat gccttcatat 300
 ttgaagcagt gctttctata ctacactctt cttcctaaaa gtaaaccctta taatatggat 360
 caagtagttg caatgtggat gagcgaaggt tttcttcacg gaaactcgag tgatttagaa 420
 gaattgggaa gaaattact 439

<210> 10056
 <211> 448
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-H10

<400> 10056

gtacagggcc agaattcccg ggctgacgta tcataggcgc cttctgtcca atgagtggat 60
 gatattctgtc ccaacgatga gccaacacgt gtttcctcca gccaatgatg attttacaca 120
 tggaaaatcc ccattggctg ggggttgtaa cgggttatcg gatccaaaac ccgacccgat 180
 agcttaacag cgttctgtta cggtggatgc cacatgtcgg tcacccttga tgaaagcact 240
 tttgtgacgc gcgatttatc gtcattggaag tggacacttc tgtgatgata attttggtta 300
 tgtcatggaa cacttctacg acagcacagg tatgactatc ttgattctgt cataaaatcg 360
 tcatggatgt acatgcatga caaaaaatgc gacctactgt gacaaacacg tatcatcacg 420
 gaagtgtatt tttttgtagt gtaatatg 448

<210> 10057
 <211> 434
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-H12

<400> 10057

cccggtcga cacacgacac aagggttgg cggagtgttg gggacctcat cgagcgaatc 60
 ggggatggtg ttggtgtagg aaggcaagtg tacattgctg gagaggggat caacacggtc 120
 tccatggagg tgcttaaggc aaagtacaac aacttgcgtt acctggatga gtttcagagg 180
 ctctggagaa aagaaagcaa gtggttcttg gagatgaaga ggctcaatgg tggagttcct 240

gtgaagtttg atgggtacat gcgtgagctg gttgacaggg aggtcttcct caagggcaag 300
aagaaggctg aggtgctcca gtgattgctt ctccaagata aatcggtgga gaacacgtca 360
tgctttttcc aagtgaatcg tgtatagacc gtgtctgaat ttgttgtcag gtttagggta 420
tagatgatcc agtc 434

<210> 10058
<211> 437
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-032-Q1-E1-H9
<400> 10058

attccccgggt cgacgacagc tacaccaggc aatgttgatg cagcagcata gcactgaaga 60
tggattggtg gcatgtggct gcggcgccct cataccggc aggcgtcctg gttgagaagt 120
gcgcccggact gctgggtgcc ccataccggg cagcctcctt ggttgggacc tcaggtctta 180
gatggtaggt ttggaatcga ggtccgtttg gtattacgcc cagactacca gcatccctcc 240
atcaactgga tacgagtatc gatagatgtt gccctagacg gtggctttag tcttagtagt 300
gtctgaattt gtaaggctct gtgtgaatta ttaataaagt ggccacatgc atcggtcaga 360
tgcagaagcc tggggtcgtc ctctttttcg aagaatatat atttctttgc atgatcatgt 420
atttgacatc gtatttg 437

<210> 10059
<211> 448
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-044-Q1-E1-A9
<400> 10059

gtaccggccc tagattcccc ggtcgacgag cggccgctat tttttttttt tttttttttt 60
tttttgcaaa agaaagtga acgtaacttc ttggaaccag aaacagcaca ggacagaaaa 120
cacaattaa tagcaagttg accatcttta gattgtgagt cgatcaacag ctgtcttaat 180
atcaaagagc tcattctaac acaaacgaac ccataaacca tggctttaag ctacaatccc 240
gataaacaaa atcatcacag tgttcgcaga attcaaacat caacagagag gacagcacc 300

cacgcacgca ttggatctga agacctgttg ggtgctccca cgtgctgaag agtcgcttct 360
tcaactccatg gtagctccag aaccgaaagt gccgccgccg cctccacggc caaatggcct 420
ggcagcacca ccagcacccc tgaaagct 448

<210> 10060
<211> 439
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-044-Q1-E1-B10
<400> 10060

ttcccaggtc gactccgagg aactcactgt ggaggagcgc aacctcctct ctgttgcata 60
caagaatgtg attggagccc gccgtgcctc atggcgcatc atctcctcca ttgaacagaa 120
ggaggagagc cgtggcaacg aggaccgggt cacactcatc aaggaatacc gtggcaagat 180
cgaaactgag cttagcaaga tctgtgatgg catcctcaag ctgctcgaaa cccaccttgt 240
cccgtcttcc actgcccctg agtccaaggt cttttatctt aagatgaagg gtgactacta 300
caggatatctt gccgaattca agagtgggcc tgagaggaag gatgctgctg agaataccat 360
ggtggcatgc aaggctgctc aggatattgc tttggctgag ctggctccaa ctcacccgat 420
taggcttggg ctggcacta 439

<210> 10061
<211> 241
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-044-Q1-E1-B11
<400> 10061

tcgacgacgc cgacgtgaga gaacacgtgc ccttctcgca cacagatctc ggcatgagga 60
tgtctgcact gctaacctcc cgcgtatgct ggcggcatcg gtattgatcg gcagtacgac 120
gtccgaagaa ttgacgtata agtcatgcgc gtaataggac aataacatat catgcctaac 180
atcgcgatcg acattcgtgc atgataccac atcttctgct gagtcatacg tgtcacgtcc 240
a 241

<210> 10062
 <211> 410
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-044-Q1-E1-C11

 <400> 10062

```

attcccaggt cgacatcgta agatgtatac ggacgaatgt gcctcatcat gttggcgatt   60
gcttcctcac tcaggctaac ttacgatacg agagacttgg ctgcaggtga gacttatgtt  120
ttcaacttag tcactaactg caatttctac ttcttggcat aagttttttt ccggcgatca  180
acactcattg cgtcttaaca ctgtaagatt ggggaaagtg taaatgcgac tcttactagc  240
atcaagatcc aacccttgac acgggagtat aaatacctca cgtaacagtt tggccgcact  300
aatgatcga tcctgtcatc cgcttgcata ctcaagttata tcacttccat attgcttcag  360
tcgatctctt cacaggctgt cggactacac cttcatgtct gcgaaactcc             410
  
```

<210> 10063
 <211> 425
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-044-Q1-E1-D12

 <400> 10063

```

ttcccgaggt cgacgtccat acataactga aggacgggaa ataggatggg acagagagag   60
agagaggaga gagaggggga gggagagggg tagagtgctg gatgggtgat ggagttgctt  120
ctcgaagatg gtgggagagg cctactagac aaaccgaggg tggaactgca atattatcaa  180
taagagtggg gatgtgtttc tgtgtgtgcc tgtgcgtgat agatctgtcg ggacacatcc  240
atggatgatg aaggggaacc atgtgttttg taagcaaacc taactagatc ggtagatcaa  300
ttgttttttt tgtcggagga acggagagac ataactaatg aggtagatcg atcgacgcgt  360
ggggaaaaac gagttataag gacctagcta gctatatgta tagccggaga tctgtcgggtg  420
tacat                                             425
  
```

<210> 10064
 <211> 356
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-E9

<400> 10064

cccgaggctcg acggagacct aatggacctg gtgtgggggc tgcagtattc catctgcctg 60
cggcgctgtc gaagaggagg actccgaggt ccgcctcgca gagcacggcg agctcatgcg 120
ccttcttgag cagccgggcg ctgcgcttgc cgaagggtga ctgcgtggag acgtcgttcg 180
acggtaccaa catctaagtg ggctcgctct ctggcggtcg ctcgagagga tccaggcttg 240
ccttagcttg cagtgcattg cgtacctctg ctggagtgtc atcgtaaata acactgtcgg 300
tccgttggtt tataacttcg tgactggcaa aatgcttccg tttgcagact tagtcg 356

<210> 10065

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-F10

<400> 10065

cccgaggctcg acagaaacag agcacaccga gatggcaatg acagaggctg gcaaaccagc 60
aacatggtgc atgtctctgg ccagagtgc ttcagcagag ctattagagc tgtagtgatt 120
cccccaact tcaggttggc gactggagtc agtaagttca ccggagagtc caagcctgac 180
acctggctcg aagactaccg agtggctgtc cagattgggtg gcgacaatga tgaggtggcc 240
atgaaacacc ttcctctgat gttggagtgc tcggctaggg cgtggctaaa tcagttggcg 300
cctggcagta tctatacttg ggaagatcac gcctgagtgt ttgtcagaac gtttgagggt 360
acttgcaagc ggctagcagg tttgacgaa ttacagtgtt gcgtccagaa accgaatgaa 420
actttgagat atta 434

<210> 10066

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-G12

<400> 10066

gtcgactgga acgactaaat ctacaaaatc cacataccgg gtgtcctcaa gtatgtgctc 60

aagtaaaacc acagcaaaat ttatcaagat atatgcacct tatcttctcc acaagccaaa 120
aaccacatcg cgcgtgttct tcttgcattg gtatgtgatg gaaaaacaag gaagactttt 180
cacatgccgg ctagattatt atgttggaga aggacatcat tgatcgggtga taaaaacaaa 240
acaaacaagc atgtattctt gaattatatg ttcaggtttg tgtaatttgc tcatgtcttg 300
aatgagctg ggatgataaa atatatgtat tcatgtcatg tttgaaacaa agcagacaag 360
agaaggctga caaaaaagaa gcggccgctc tacaggatcc aagcttac 408

<210> 10067

<211> 465

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-G9

<400> 10067

ggtacgcctg ccggtaccgg cccgtagatt cccgagtcga cttccaccaa agcgaaatcc 60
atcatctcat cgaaagacgg gacacctccg cctctatcaa gtggatcag atttccaggt 120
tgctcgggtga gattttacag ttttctgtag tttagatcga gtctgttctt catacctaca 180
gtccacgaaa aagccacaaa aaaaattagg gttagtctcat catatccgaa ccaatctgag 240
cctttgcata atcttttttag ggttttgctt tgttgaattt gcggttgcat cgtcgtgtct 300
agttgctggg cttagagtct agtcttttag agtttcgagt tctggtcata agttgtcacg 360
ccgccgccgc accatcatca tcgccctgc catctaccac caccgcttat ccgccaccgc 420
tccgaatccg tatccatata ccaccaccaa tccgtgtcca tatac 465

<210> 10068

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-H12

<400> 10068

tcccggtcgc actccacag aaaatgatag ccaccatctc atcgaaacat cgggaccctt 60
gcctctatca agtggtatcc gatttccagg ttgctcgggtg agattttaca gtttttcgta 120
aattagatcg agtatgttct tcatacctac agtccatgag aaagccacaa aaaaatttag 180

ggtagttca tcataccga accaatctga gcctttgcat aatcttttta gggtttttgc 240
 tttgttgaat ttgcggttgc atcgctgtgt caagttgctg gtcttagagt ctagtctttt 300
 agagtttcga gttctggcca taagttgtca cgccgccgcc gcaccatcat catcgcccat 360
 ctagcacttt tgcttatccg ccaccgctct gggatcatat ccataacca ccacaaatcc 420
 gt 422

<210> 10069
 <211> 422
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-H9
 <400> 10069

attcccgagg tgcagctact cctttctggc tgggagatgg tcatggggac gattgtatgg 60
 cgtccagata tgctctccca caaagagccg cattgccttg atgtagttgt cactatccaa 120
 tgtaaagcgg tgatacttc ctgcatgcaa aacaatcatg ccacctttct taactgctat 180
 acggatccac tgttcgtttt ggtccctcac atcaaagtat ccactgccct cgagacaata 240
 gcgtatctct tcatcagtat gcaagtgtc ttcatagaag ttcttcagct tggcctcata 300
 ctttggaac ttctctggac atacatctca aatgtccaca taagagtatc gcctggcctc 360
 acggattttc ttgagattct cgtcattctc ccagtcacga gcattcaggt tccagcttac 420
 aa 422

<210> 10070
 <211> 463
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-045-Q1-E1-B12
 <400> 10070

taccggtccg aaattcccg gtcgaccgca ggtatgatca aggtctctgc tgggtgtcct 60
 accttcgatg gtacggacta cccctactgg aagaacaaga tgccaatgca tcttgaagca 120
 attgataacg atctctggta tggtgtggaa aatggtgttc cctcagtcac accttctctg 180
 aatgctgctg atgtgaagag attcaagcaa ctcgactctc aagcgaagaa tatcatatgt 240

ggccatctga gcaaaggaca ctatggcaga gtgagtgcctt tggagacagc gaagtttata 300
 tgggacaggt tgtccaaagt gaatgaagga gtctcaactc agcgtgaatc tgcagttgat 360
 gttcttcgca atctcttcaa ccgcttcaaa agactcgaca atgaaaatgt tcaacaaacc 420
 ttcgatcgcc ttactgacat ctcaaagag cttcaagcac ttg 463

<210> 10071
 <211> 465
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-B4

<400> 10071

gaattcacgg gtcgacggag aagaagcagt tgaacccgat gcgggagatc aaggtgcaga 60
 agcttgtcct caacatctcc gtcggggaga gcggcgatcg cctcactcgc gctgccaagg 120
 tgttggagca gctgagcggg cagtcgccag ttttctcaa gccgaggtac actgtcaggt 180
 cttttggcat tcgtcgtaat gagaagattg cctgctatgt gacgatcagg ggtgagaagg 240
 caatgcagct tctcgagagt gggctgaagg tgaaggagta cgagctcctg aggaggaact 300
 tcagtgcacac tggttgcttt gggtttggtt ttcaggagca cattgatctt ggcatgaagt 360
 atgacccatc aaccggcatc tacggcatgg acttctttgt tgttctggag cgagctggat 420
 accgtgtctc ctgccggcgc cgatgcaaag ccgtgttggg attca 465

<210> 10072
 <211> 426
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-B5

<400> 10072

ctgccggtac aggtccgaaa ttcccgggtc gacagacgac agaagggatc ctgatgaaga 60
 ggaagagaaa taagccagac gtgatcggac tgaccgggtct cctgtatttg tgcagtgttc 120
 ttgttggttg ctggggctct tctggcctgt acaatgggtg caccacaaca gccgttttgg 180
 tgggtggtctg ggcaggtgct agactgtctg tttgttagcc atttgatgtg atggccctgc 240
 gcgcctacct ggttgttgtg cttgactcgt ggtgttattg acctgtagtc tctttagtgg 300

ccggtcatgt acaatagctg tttggttata ctactctgtt cctttcctag gtagctagcc 360
 ctgactgtaa tttgcagcat gcatacttgt ccgtgttctg ttccttgcac tttatccatg 420
 taaaac 426

<210> 10073
 <211> 495
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-045-Q1-E1-B6
 <400> 10073

cgctgcccgc taaccggtccg aaattcccgc gtcgacatcg agccagatgc gcatgtcaag 60
 caggcgatga atgagatcaa tgcagctgca aggatgaggg tggctgcaaa cgagaaggcg 120
 gaggctgaga agattgtcca gatcaagcgt gccgaggggtg aagcagaggc caagtacctg 180
 tctggcctcg gtatcgcccgc ccagcgccag gccattgtgg atggcctgag ggacagcgtc 240
 ctgggcttct cagtcaatgt gcctggcacc actgcaaagg atgtgatgga catgggtgctg 300
 atcaccacgt acttcgatac tatgaaagag attggcgcggt cctccaagtc ctcggcgggtg 360
 ttcatcccc atggccctgg tgcggtgcgc gacatcgcca cgcagatccg tgacggtctt 420
 cttcaaggcc agtctgcctc tgacaactag cagtttgctt cgccggcatg aactttggaa 480
 ctgctgggtgg tttgt 495

<210> 10074
 <211> 492
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-045-Q1-E1-B8
 <400> 10074

cctgccggta caggccgaa attcccgggt cgacatcgaa ccagatgcgc atgtcaagca 60
 ggcgatgaat gagatcaatg cagccgcaag gatgaggggtg gctgcaaacg agaaggcgga 120
 ggctgagaag attgtccaga tcaagcgtgc cgagggtgaa gcagaggcca agtacctgtc 180
 tggcctcggt atcgcccgc agcgccaggc cattgtggat ggctgaggg acagcgctct 240
 gggcttctca gtcaatgtgc ctggcaccac tgcaaaggac gtgatggaca tgggtgctgat 300

cacccagtagc ttgataacta tgaaagagat tggcgcgtcc tccaagtcc ctgcgggtgtt 360
catcccccat ggccctgggtg cgggtgcgcga catcgccacg cagatccgtg acggtcttct 420
tcaaggccag tctgcctctg acaactagta gttggcttcg ccggcatgaa cttttaagct 480
ggtgggtggtt tg 492

<210> 10075
<211> 445
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-045-Q1-E1-B9
<400> 10075

tgacgggtccg agattcacgg gtcgacatac ttcgcgaatg gcagcagtat tcacatctag 60
cagcatggca gcagaccagt tttttttctt ttcttgcgtg tgtttttctt ttctttttta 120
ttttcttttag tatggatcta tctctctgat caagcaagaa gagatcggca gctccagcga 180
catgacgagc cgtttccggg tttttatgaa gggaactatt tggggtcgcg cggaagcaaa 240
actagctagg gtttattagt gctgctctag ttccgcttgc tattcctttc gcttggtcgt 300
ttgttttctt aaggatttta ttatcaaggt tgtaaggctg gggatgtgca gctagcttca 360
gattcaagcc tgccgtctcg cctgcttgta cattgtaaaa cagaaccgct gctctccagt 420
gactgaatga ttataagcag ctact 445

<210> 10076
<211> 456
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-045-Q1-E1-C10
<400> 10076

tacgggtccga gattcacggg tcgacgtctc atagctgact tcgatccaat gactggatga 60
catctgtcgc aacttcgata tggcacgtgt ttactccagc caatgatgat ttacacgtg 120
ggaaatcccc attgggtcggg gctgttactg gggtattgga tccaatatcg gacccgatag 180
cttaacagcg ttctgttaca gtggatgccg cgtgtcgggc acccttgacg aaagcacttc 240
tatgacgcgg gaattatact catggaagtg gccacttccg tgatgataat ttttgtaatg 300

tgatggaaca cttctacgac agcacaagta tgaccatctt gattctgtca taaaatcatc 360
atggatgtac atgcatgaca gaaaacgtga cctactgtga aaaacacgta tcatcacgga 420
agtgtatttt tttatagtgg aaacgtgtgc aatggc 456

<210> 10077
<211> 457
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-C11

<400> 10077

taccggtcgg aaattcacgg gtcgacgccc tgcggcttac aaagtcccgg ccggttcata 60
aacaatgtct ggctcgatga ctagttaagt ctaccttatg atacaagtaa tattattaca 120
acggggttact acaatgggccc ttaagtcgcc tgcagtcctt aagctctcta tgaaccgcca 180
tcttcatact ttgtcttggg attctctctg gtgagtcctc tttgggtaac ccggcccctc 240
ctgggcggtt tacacaaata gttatatccc caacagttgg ggtggttcta catcaccgag 300
ccacgcgatc ccaaattgggc ggcggccccc gaattccgat ctggctttcc cacacggctc 360
acctcctgga aagagacagg cctaactgg ggggattcag aagagctgac cggacttcaa 420
acctgcgtcc aaaagctggt gaacaagaac ctcaagc 457

<210> 10078
<211> 482
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-C2

<400> 10078

tccgaaattc acgggtcgac ttccaccaa gcgaaatcca tcatctcatc gaaagacggg 60
acacctctgc ctctatcaag tggatcaga tttccagggt gctcggtgag attttacagt 120
ttttcgctgt ttagatcgag tctgttcttc atacctacag tccacgaaaa agccacaaaa 180
aaaaaatcag ggtagttta tcatatccga accaatctga gcctttgcat aatcttttta 240
gggttttgct ttgttgaatt tgcggttgca tcgtcgggtc agttgctggt tttagagtct 300
agtcttttag agtttcgagt tctggtcata agttgtcacg ccgccgccgc accatcatca 360

tcgccccctgc catctaccac caccgtttat cgcgccaccgc ttcgaatccg tatccatata 420
ccaccacagc tgtcatatac caccaccgct gccatctacc accatatatc caccaccaat 480
cc 482

<210> 10079
<211> 497
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-045-Q1-E1-C6
<400> 10079

cgcttgccgg taccgggccg aaattcccgg gtcgacaagg tttgtatgat agtcaagaag 60
cagctggcag tccctgatgg gacccctgtc acagcggagt cgaaattttc tgaacttggg 120
gctgactcac tggatacggg aaatccgcaa ctccccatcc cacagaaatg gcagtagccc 180
aaaagcagcg ccgttcatac gtaacaccga ttgtgttttg caggttgaga ttgtgatggg 240
cctcgaggaa gagttcaaca tcaccgtcga tgaacaagc gcgcaggaca ttgcaaccgt 300
gcaggatgca gcggacctta tcgagaagct tgtgacagag aagacagcgt aagcacctcg 360
gttcattgga cagctttaga aggcaaagg gtcattctgga accgtggact tctgattttt 420
cggtcgcatt tggggcgaga gaaaataatt tatggacagc tttgcattca gtctatgttg 480
tgtgttcatt accattt 497

<210> 10080
<211> 364
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-045-Q1-E1-C7
<400> 10080

gcctgcccgt accgggtccg cattcccggg tccacatggg ttgccacatg gccaaagactc 60
agtagagtgt cctgcatgcc attgcgggtg cagctcagac gtgtctctgc gttgtcgatg 120
ctaacactat gtgtggatgg cgtcgccaga tcacgcctgg attcatgtta gttggacatg 180
aattacattc tgttttccgc atcaactaat agctgtaagg gagttgctaa tcaagtagcg 240
ctctttggat atggcatgag cagagtcgat gaaacaagcg cgcaggacat tgcaaccgtg 300

caggggtgcaa cggaccttat cgagaagctt gtgacaaaac acgacagcgt aagcacctcc 360
gttc 364

<210> 10081
<211> 453
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-045-Q1-E1-C9

<400> 10081

taccgggtccg agattcacgg gtccacctcg gttggcgaga gcggtaaagct tgtcgatgtc 60
gggtggccgt ctgtctgggt caggatcgcg acccagtggg caacggcagg tctgttcac 120
tggtccctcg ttgctccct cctgttccca gacagggagt tctagatcga cctggttacc 180
tgctaagagt gcatcatccg tttggagcac ctacttatcg tatcgaacgt gtttcggctg 240
tgatgatagc taagctgact atctgtatct ggtctgtaat attgtgtgag caaacccatg 300
gcaaggagct ggtgtttgtg tgacgttgtt gagtctgggt tgcataatgt gtgacctaa 360
gcattgttgc cagtatttca acagtgaaga tacgctcttt ggttgatatat aaaaaaant 420
aagtgtnagg aaaacagaaa aagcggccgc tct 453

<210> 10082
<211> 432
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-D1

<400> 10082

cgctgcccgg tagccgtccg aaattctagg gtcgacgccg agaagctcag ggagatcggc 60
ttcatcgtct actccatcgg caagccgctc gacggctggc tcaaggacat gcccgccgtg 120
gcctaagttc acctcgtcgg ccggccggat cggaggaaga gcaagaagtg gtttgaccgt 180
gattcattct ttatagtttg cattttgcag gagaagcatc cacattttct ctctcgcca 240
taagaattta gtaaattctt atgtcttgtt aagtttccga tacatgtttg cgccaccccg 300
tctgtagatc ttacttataa tcaaattctc gggcccctgt gctgcctgag gaggtttttc 360

cgttgtatcc catgaacgaa ctttgaacc tgttttgctg aaatcattac agaatccaat 420
gtgtttttta ca 432

<210> 10083
<211> 491
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-D5

<400> 10083

acgcctgccg gtaccggtcc gaaattcccg ggtcgacatc gagccagatg cgcattgtcaa 60
gcaggcgatg aatgagatta atgcagctgc aaggatgagg gtggctgcaa acgagaaggc 120
ggaggctgag aagattgtcc agatcaagcg tgccgagggg gaagcagagg ccaagtacct 180
gtctggcctg ggtatcgccc gccagcgcca ggccattgtg gatggcctga gggacagcgt 240
cctgggcttc tcagtcaatg tgccctggcg cactgcaaag gacgtgatgg acatggtgct 300
gatcaccag tactttgaca ctatgaaaga ggttggcgcg tcctccaagt cctcggcggt 360
gttcatcccc catggccctg gcgcggtgcg cgacatcgcc acgcagatcc gcgacggtct 420
tcttcagggc cagtctgcct ctgacaacta agcactttgc ttcgccggca tgaactttga 480
agctggtggt g 491

<210> 10084
<211> 483
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-D6

<400> 10084

cctgccggtta ccggtccgaa attcccgggt cgacatcgag ccagatgcgc atgtcaagca 60
ggcgatgaat gagattaatg cagctgcaag gatgaggggtg gctgcaaacg agaaggcgga 120
ggctgagaag attgtccaga tcaagcgtgc cgagggtgaa gcagaggcca agtacctgtc 180
tggcctgggt atcgcccgcc agcgccaggc cattgtggat ggccctgaggg acagcgtcct 240
gggcttctca gtcaatgtgc ctggcaccac tgcaaaggac gtgatggaca tgggtgctgat 300
caccagtac tttgacacta tgaaagaggt tggcgcgctc tocaagtcct cggcggtggt 360

catccccat gccctggcg cggcgcgga catcgccacg cagatccgcg acggtcttct 420
tcaaggccag tctgcctctg agaactaagc actttgcttc gccggcatga actttgaagc 480
tgg 483

<210> 10085
<211> 462
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-045-Q1-E1-D9
<400> 10085

taccggtccg agattcacgg gtcgacgtcg acacggaggt gaccgcgggc gcgcagccga 60
agaagaggac gttccgcaag ttcagctatc gcggcgtgga tctcgatgcc ctctcgaca 120
tgtccaccga cgaccttgtc cagatgttcc ccgctcgcgc ccgcagaagg ttcaagaggg 180
gtctcaagag gaagcccatg gcgctcgtca agaagctgcg caaggcgaaa aaggacgctc 240
ctgctgggtga gaagcctgag ccagtgaagg cacatctccg taacatgac attgtccctg 300
agatgattgg cagccttata ggtgtctaca atggcaagac cttcaaccag gttgagatta 360
agcctgagat gattggccat taccttgtag agttctctat ctctacaag ccagtgaagc 420
acggtaggcc cggatcgggt gccacacact cctcccggtt ca 462

<210> 10086
<211> 398
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-045-Q1-E1-E1
<400> 10086

taccggtccg aaattcacgg gtcgactcat gacgtcttag tgttccctgc agtcttaaca 60
gttcgattat acttcacca acatacaaca tcactactca tcataacctca tcatgccatt 120
tcggttaciaa tcgtctctat gagtaactag ggacaatctc aggtctaccc actacagaga 180
ctttcctggc ttcttttcag catatgatat aaccattctt atgatattac cagcttcagc 240
attatcaatt gctatggaat ctctactatg cattcataca tctgattata tcaccacttt 300
tcgataaciaa gttctacata ttgatgtggt gttataatcg tgtaaacact gcatgatgta 360

tattaatcca gtgttcacaa tgcttgctc caagagca

398

<210> 10087

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-E3

<400> 10087

ttcacgggtc gacttgagga cactgtctgc tcggggaacg cctctccac gtggcaggcc 60
attcagtacg gcctcgagct cctcgagaag gggattctat ggcgcgctcg cgatggcccg 120
aatatacgca tatggcgtga ccgttggtc ccaacgaaac cgacggggta gccgatcacg 180
cggcacggga cttgccgtct tcggcgggtc tcagagctcc tggacgagtc cgacgcctgg 240
cgtacgaacg tgctgcgaca gtattttctc ccggcggatg tcgcgaccat caccagcatt 300
cgcacgtcac cccgcatac cgacgagtc atcgcatggg ccccgaaaga gaacggcatc 360
ttcacggtc gctctgcata tcgccttgcc atggacgagc gccagcgtcc attg 414

<210> 10088

<211> 482

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-E5

<400> 10088

ctgccgttac cagtccgaaa attcccgggt cgacgctggg gaagtaatcg tcggagtccg 60
tgatggaaaa gtcagtagtc gcgcggagcc ctccccaaaa accttatcac cctcctcctg 120
tacagcagca actcagagat tggaaccggt ggcgagagga agaagaagtt ctggtgcacc 180
tctctgagag gagaggctc ctttttatag gcgcaagagc agcgacggag ataaaaattt 240
agacattagc tcggctcatt ccctccctt tataggcgcg ggcggcgaag gaggagcgcg 300
cgtggatgtc cctcttggtc tcatgctcat acaagtgagg aaagaacctc cttataaag 360
aggtcaaact ccctctaaac tagcaatgtg ggactaaact ttagttccag ctctttcctt 420
gcacgaatgg cctgcgtggg cctccaagat ttattacgaa atttccgaaa ctgcttattg 480
gg 482

<210> 10089
<211> 487
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-045-Q1-E1-E7

<400> 10089

gcctgccgng tacagtccga aattcccggg tccaccaata caggcatata ggccaatatc 60
atgaaagtcg atacttcagc atttgaaatt ttggagagta catagtagca tgacaaagag 120
taaccgtaca tcatggctgg gttgaaacgt cagaactgga aatccacaag gatttagttc 180
ggaacaaggg ccatgactag ttttgacgac ataaagctta acctctcagc catgtgttcc 240
tgtacgacga gttgtctcgc agcgaggcgt catgtggctt gtactccatc agatacgtgt 300
gcggcagctt caagtgcctc ttaatcgagt ctcttaatgt catcacagcc tgatgggtctg 360
atgcattccg attccagacg cccaggatgt cttcattgaa acgacaactt agcacgatgc 420
cacagacatc atcactataa tcaagttgat caccacagag aaccagcacc aaatcctccc 480
agaaacg 487

<210> 10090
<211> 375
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-E8

<400> 10090

cctgcccgta ccagtccgaa attcccgggt cgacggcaag gacccaagg atctgcggac 60
ggagatcgac gacggcgagg tggagatccc cgcttaagaa ggcttggctt tgggcagggt 120
gttatgtgag gctgctgaag tagtttctcc tatctagatg cttcctgatg cagttgagag 180
aatggatgtg atatcttcac ttgttctact cgtgctgaag aagaaacttt tgtcatgctt 240
tagtggttcc attgtgagac tatttttttac tggtttaatg agtaccttgc ggaatcaatc 300
aatgttatta tggcagctag aatatcaggc gctactgggg gtagcgcgaa gaaaaagcgg 360
ccgctctaaa ggatc 375

<210> 10091
 <211> 444
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-E9

<400> 10091

cggtccgaaa ttaccgggtc cacatgcatg catggaacca acggactagc tatagggggg 60
 tggagcagga gccacggatg gagtagccac gatggagcac ccgaaaaatt gtcgggtccc 120
 accgctctcc ttgtccagcg ttcgcctact acctgcagct gctatagcta catttgggca 180
 gtatgcatgc cgttctttta cttcttttgg agaaaacaga aggggtactgg tttgcctaata 240
 gctaagtcca caagtctaac ttccaaagtg gtgcaatttc agtttagtgg aaaggaagac 300
 tcaaattgtg attttttagaa ttggtttatt agataataga aaaaagaatc tcaattacca 360
 tagatataaa ttgacacctt ttccccatta agaggtgtat tttgttgact cgtaatgtcg 420
 catcaagaaa acacaagcac catg 444

<210> 10092
 <211> 372
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-F1

<400> 10092

tccggaaatt caggggtcgac ggtcttttaa cactcgggtg cattctgcga gggagtggac 60
 aagtagtgaa cggtgacaag ggagttgtgt acaccacaa ggatcttctt ttgcaatgag 120
 ggtagaggat tcctgctgta gagcaatttt tgtagaataa tcctcttcaa agcccccttc 180
 tctccgtgcg aggaatgaag aaagacaaga gagcattggt gttactatgt cgctatctag 240
 ttccgtgatt attcgtgtac aatgatttat ccatacaatg tcgtagttat ggcactagct 300
 gttgtaactg tagaattgca tcggtacatc tatgccacat atatgaagta cctgtacggt 360
 ttctgatgaa ag 372

<210> 10093
 <211> 443
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-F11

<400> 10093

tgacgggtccg agattcacgg gtcgacttcc accaaagcga aatccaccat ctcatcgaaa 60
gacgggacac ctttgccctct atcaagtggg atcagatttc caggttgctc ggtgagattt 120
tacagttttt cgtagtttag atcgagtctg ttcttcatac ctacagtcca cgaaaaagcc 180
acaaaaaaaa attaggggta gttcatcata tccgaaccaa tctgagcctt tgcataatct 240
tttttaggggtt ttgctttggt gaatttgctg ttgcatcgct gtgtctagtt gctgggtctta 300
gagtctagtc ttttagagtt tcgagttctg gtcataagtt gtcacgccgc cgccgcgcca 360
tcatcatcgc ccttgccatc caccactacc gtcggaatc cgtatccata taccagcacc 420
gattcatatc catatacgac cac 443

<210> 10094

<211> 319

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-F4

<400> 10094

tccgaaattc acgggtcgac cgggacacgt tctgcagtgc gacgtagctg cactctgtt 60
ggctaacgcc cgtagttact gcagtctcca tcctctatcg atggacatga tcgtcgatcc 120
accacgaagc aattggaaat cgatgtgtgg tctaagtgtg ttaacagtag agtatccacc 180
tcggtcctgt ggtagatccc tgtcgcagat ttagcgaata acgacatact gagcaaatg 240
agtgaatcta cactccgggc gtatcgtcta cgatacatcc gtacgtagtc gtccatttga 300
catctctaca ctgcttaaa 319

<210> 10095

<211> 458

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-F7

<400> 10095

acgcctgccg gtaccgggtcc gagattcccg ggtcgaccgc cgctgggtgt tgctgctgcg 60

cgcgctgctc agccatccgg catccggcaa gacggcaata cagtatgtag ccatccatgt 120
 atcatattcc tgttccatcc ccgattccat ccaaagctaa acttcagcag tttctttgat 180
 tcttttagtac gtattcaact attcatccct gatccatcct aattttctgt catgttgtgt 240
 acttcctcta tttcaaattt agactagaac catgacgagt aatttggaac ggagggagta 300
 catatctagg tttcaatcat ctgatgtata gatttctaata tctttgtatt cgaatttctt 360
 cattagttta ggacattagc ctgtcagttt atccaagaca aagcatttac caggtgcata 420
 aaagctcggg acggagaaaa aaaggggggg cgctcggg 458

<210> 10096
 <211> 454
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-045-Q1-E1-F9
 <400> 10096

taccggtccg aanatcacgg gtcgacaaag ctccgtcgaa gattcctgtc atctcattgg 60
 gatggtgagg ttagggtttc tcttaatgtg gcgagatttg gtgtcagatg attaagatct 120
 acgcaagggt tcaacggcga gaactgcggc tccagggcgt cggtccttag gggcacgtgg 180
 acgaagactt cccgactatc atccacaagg tcaagctagc tccaatagga gagcggcaat 240
 agcagcgcgt cgatggcttg ttctgacggt agtcagtggc ggagccaacc agctcaagga 300
 gtcggacaaa ctctttgcac cctgacgtgg tcagcatttg tccaaggaat taacaatact 360
 aatcatggtt gctttgtact agttagtga gaatggcaga agcagcccgg gcagctgccc 420
 cgggtcgcca ggagctaact ccgccactgg cggt 454

<210> 10097
 <211> 467
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-045-Q1-E1-G12
 <400> 10097

taccggtccg aaattcacgg gtcgacagat caatttttgg aggcgggtct cagtttaggt 60

gtgcatgacc ttacttgaac tttctcaaaa taatataatt tactttttcg tgaccactaa 120
 ttttaacttct ttttaagcaat tattatgagt agaaaaggca agggcggtact gaaaaaacac 180
 tgcaaattca aaaaatgtcc atcgcatatt taaaaaata ttcttcacat atttaaaata 240
 cccatcatgt tttttataat attcatgtat gcaggaaaat tatattcata tgttgaaaaa 300
 aactatgtaa ctttcaggta agtcaaagga aaaaagtaaa tgtaaaaatt tggatttaaa 360
 atgagtaaaa gtataaaaac ggaatataac attgaaggaa aaagacagaa aaccgaagca 420
 aacataagga aaattgcaaa aacaaaaacg accatctggc gcaatga 467

<210> 10098
 <211> 445
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-045-Q1-E1-G4
 <400> 10098

gtcgacctcg cagtctccaa ccgataccta gtggcatgat tgaagggcga gactaccagc 60
 tgggtgaacga gaggatatgt attcggcgtg tcctgaagag gtagtccacg aaccggcaat 120
 ggaggaaata aggtagatac ggcaatagca gcaagtacgt caagcgctag ggatgtggat 180
 atggtgtggc ataaagaggt tgatgttctt gctcagtata agccaataat ggagaaactg 240
 atcaagctat ctttcatgat cagttacaca ccaagcctat atttatgcta cttctacatg 300
 ttgctgtgat ggtcattcgg ccatttttct tgaacctgca ctacgatgag agatctgggc 360
 tgcttctttg tggcttccaa acttaaaatg tttgtttgaa agttagttaa gttttttgtt 420
 gtggactcac atcttctcac atgta 445

<210> 10099
 <211> 439
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-045-Q1-E1-G5
 <400> 10099

taccagtccg aaattcccgg gtccacacca gcatttgcaa cacggctttt ggccggccgt 60
 cggcaaagaa acaagagcca tccatgattt gcatgggccg gttgcctaata taggatgttt 120

gtatggcagc taagacagaa gtgggggtttt ggcgcggttg gttagcgcgt atgtaaactt 180
 acaaaatcag acaatcatta tgaagaaacg ctcaatgacc acttggatcg ccacatatac 240
 aactgaatca tctgactagg ctagtacaat gtatgcgtct aaatctgtgg gaacgcataa 300
 gttgcatgtc tgagtgggcc catcatttct aagttttcta tgcgacgcca ggctctataa 360
 cagaaaaaaa aaatatcaat tgtgtgctag cttaacagtt ttttataaag ggaatatact 420
 aatatcaaac ggatatcaa 439

<210> 10100
 <211> 370
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-045-Q1-E1-G7
 <400> 10100

gcctgccggt accagtccga aattcccggg tcgacagtgc tcaaaataaa cattaattcc 60
 tcaatgcttc tcattgatga ttccagtaca ccgaaaaaga aacagtcatt ctctcaagag 120
 gacaagaagc ttgatgaaca agaagcattg catctagagg caactgtcgt gtgccatcaa 180
 gatatcaacg tcgatgcaat ttttaatggc aattcttggt gagcgatgat tattatactc 240
 cttcagactt agccttgccc gttatgtacc aaagctgatg caattttcac tagcgaggct 300
 tgttgatcct gtgatggat ttataacttg atatgaatgt cctccttttg ttatgtctgg 360
 gatgtttcac 370

<210> 10101
 <211> 484
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-045-Q1-E1-G8
 <400> 10101

cctgccggtta caggtccgag aattccgggt ccacgaagac gacagaaggg tacgggaact 60
 tgatcgatct caggatagtc ctgctcccca ggaaagagtg cgcagagaaa cttctgacgg 120
 gtatgaagga actgcagtga tggaaatttc tgatgacgag gaagaaactg cagcgggtgca 180
 aatcacacaa ccttctgaaa gtgagaacag tcaagcgact tgtgtgcagg aagttgatcg 240

caatcaggat agtcctgctc gccaggaaag agggggcaga taaccttggg acggtgatgg 300
 aggaactgcg acggtgcaag ctacgcatgg cgacaaggaa actgcagctg cttaaagaaa 360
 ctgatggact gaatgattct tctgtccagg ttagattacc tgatcggata gatgggacat 420
 gacgccttag gcctctcggt tctcgtctga aaccaccagt ttgtttgtgc gggttgtatg 480
 tttt 484

<210> 10102
 <211> 460
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-G9

<400> 10102

ggtccgaaat tcacgggtcg acgggaacat ctctccac aaaaaacgca tcgccaaaaa 60
 ttctaaaata aatcgaaaag caacgcgagc acccgactt aaaaccctca tgggctggga 120
 tattattgtc tttctaata tccaatcaga aggttggttc gctgggctgg cctattttga 180
 tatacatgcc atggagtggg gtggcgccaa gtaacaagct tgcgtgtgta ctatggtaaa 240
 aagaagtaac aagaatgcc atcagtggcg tataaggcgc caaataggat ttgaggccgc 300
 agcgttcgtt acatgtgaca caaatcacct cttctattca gcgtcatacg cgctggataa 360
 gatgcaaacy tgcacagcca acttccttca gcacgtgctt tgggccggcc catgtgctgg 420
 gccgtctggg cctgtttttc tcctttttgt ttttgaactg 460

<210> 10103
 <211> 381
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-H5

<400> 10103

ttccccgggc cactcccaca gacactacct agccaccatc tcatcgaaac atcgggaccc 60
 tcgcctctat caagtggat cagattaaaa ggttgctcgg tgagatttta cagtttttcg 120
 tagattagat cgagtctggt cttcatacct acagtccacg aaaaagccac aaaaattttt 180
 tagggtagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt ttagggtttt 240

tgctttgttg aatttgcggt tgcacgctcg tgtcaagttg ctggtcttag agtcgagtct 300
 tttagagttt cgagttctgg tcataggttg tcacgccgcc gccgcaccat catcatcgcc 360
 ttgccatcta ccaccattgc t 381

<210> 10104
 <211> 410
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-046-Q1-E1-A5
 <400> 10104

cgggtcgacc caaacaccgg accatccaag gttgcagctc cggacggccc acgtcgcgta 60
 cgatctcgcg cgttgttctc gtgtaactaa aaatagtccc acctcgcccc tcgcccagct 120
 cctttacttg cttaaatacc ttcacgagg tgatttttagc aagcggttggc cctcattgta 180
 ggatgaatat gattcttcac ccttactatg gttgtcatgc atattcataa tcatcatgca 240
 tattcttcat ttagagatca ttaatgactg acgtatTTTT taaataagcg gggcccagta 300
 ggggtgtgctt ggaaatattt gagaaaccac catgcacgtt catctttgct gcatgcaaat 360
 cgggcgggag ccgcagtgcc agcagctgtc aacgccttaa tgaatccacc 410

<210> 10105
 <211> 468
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-046-Q1-E1-B10
 <400> 10105

cctgccggta ccggtccgaa attcccgggt cgactagtta ctccaaagac tttctagcca 60
 ctgcaacaca ccagatttgt tgtactctat ggagagcacg acctactaga agagcaatga 120
 gccgggtttt accatgttta ttttttctt tttactttat ttttggtttt ttctttttct 180
 tcacttttgc agtctaattc aacatgcttc ttctgtgtct ttttttactc ggtttttctca 240
 tgcttttccc aaaataattt cggttaacaa acgcagaaaa tgttgaataa gcattaaaaa 300
 tgggtgaacga gtattgaaaa tttgttgaat aagtacgaaa aatgttgaac aagtatttta 360
 aattttttga ataagtattt gaaaatggtg tacaagtatt aaaaatgtgg aacaagtatt 420

ttaaaaaatg tttaataggt attaaaagtt tttgaacgag tgtttaat

468

<210> 10106

<211> 373

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-B12

<400> 10106

ctgccggtac cgatccgaaa ttcccgggtc cacattgata aacgaacgca aatacgagaa 60

ctccatgcag actgcttcaa tgatgatttt gttggagtac cttttccaga taccgatatg 120

gatttgagat atatacctag aaaggaccca aagtggcagt cacgacatga caatgatcat 180

gaatctgaga gtgcttccag agcattccag tcttgctgag cttgactcag atacaacata 240

tatagtttaa cttagtgatg catatagagc agaatgtgat gctatgcatt atgctatctg 300

aaacattcaa gaggtcagtc aagcctatgc caattgagct caattcatcg ttaatcgtga 360

cttaatgttc etc 373

<210> 10107

<211> 360

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-B6

<400> 10107

cctgcaggtat tacgggtccag aattcccggg tgcacattca ggagcaaagg aggcgatgct 60

aggctaaggt gaccctcaag caccagagct ggattgtata aaatttcttc tggaagtagg 120

taaagatatc aaattttcac ggatgggtacg cggacactgc tagcttgtca tatataaata 180

catatcctgt atctatggta attcttataa gctgcaagtt aagcgtttcc actggtgttg 240

tttgctaatt ctttttcctt aaatcttttt tcatctcttg tgtagagttg gacttctaca 300

ttttttttgc aatttttcca cttggcccag agacattgta ttatttttat tagttttgtg 360

<210> 10108

<211> 466

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-B9

<400> 10108

tgccggtacc agtccgtaaa tccccgggtc gaccgaaaga ccaagggggt cttggtattg 60
agaatcttga ggtcaagaat agatgtcttc tcaacaagtg gttgtgaaag ttatcggtag 120
agactgatgc cacttgggcg cagatccttc gtagcaagta tcttcattcc aaaactttgt 180
cccaggtgag agcaaggctg tctgactcgc ccttttggaa agggcttatg aaagtcaaag 240
taaccttgtt taataggaca aggtttctta ttggcaacgg agctagcacg cgattttggg 300
aggatacttg gtcgggagag accccccttg cgattcaata cccgtcgcta tatcgattg 360
ttcaacggcg tgaggttttc gttgcaacgg tacttcaatc cactccactt aatatgcagt 420
ttagaacggc gctaattggc aaccgttggg aagcatggct ccatct 466

<210> 10109

<211> 473

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C11

<400> 10109

tgccctgccg gtaccgagtc cgaaattccc ggggccaccg aaacgggtgtg agtggccttg 60
gtgttattaa ggtcagaata caaaataccg cgctcctcct aaaatacttg ttcaaattct 120
acaatcgtga agatgtaccc tgggttcagc tgatctggga aacgcactac ccgaacaagg 180
tgccgcacac cgccgagcca gtgggttcct tctggtggaa agatgtaatg cagctcagt 240
gaatcttctg tgggatcacc aggggtgtcc ccggagatgg ttgcacctca cttttctgga 300
aggatgtctg gtttggagac ccagcctcca cattaatgga tacgcatccg cgggcattct 360
catatgctct gaatgaggat gattcggttg ccaagatcct caaatccact gatcctgcct 420
cgatcttcag tctgcctctt tcgatccagg ccagggaaga catcagcgag ata 473

<210> 10110

<211> 446

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C12

<400> 10110

cctgcaggta ccgatccgaa attccccgggt cgacatttgc ctgatacctg aggtaccatt 60

cacccttgat ggaccaaacg gagttcttcg gcaccttgag cacttgatag agaccaaggg 120

gtttgctctc atgtgtgttg ccgaagggtg tgggcaggaa tatttgcaga agtcaaacgc 180

aactgatgct tcagggaaaca tggttctcag tgatatcggg gtgcaccttc aacagaagat 240

caagtctcat ttcagagaga taaacgtcca ctctgatgtg aagtacatcg accctacata 300

catgctccgc gccgtgcgtg ccaatgcacg tgatgccatc ctgtgcacgg tgctcgggtca 360

gaatgctgtt catggcgctt ttgcagggtt cagcggcatc acagccggaa tatgcaacac 420

acataacgtg ttcctgccaa tacctg 446

<210> 10111

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C4

<400> 10111

ttccagggtc cacgttgaca cggaagtggc cgcgggcgcg cagccgaaga agaggacgtt 60

ccgcaagttc agctaccgtg gcgtggatct cgatgccctc ctcgacatgt ccaactgacga 120

ccttgctcag atgttccccg ctcgcgccccg cagaagggtc aagaggggtc tcaagaggaa 180

gcccattggc ctcgtcaaga agctgcgtaa ggcgaaaaag gatgctcctg ctggtgagaa 240

gcctgagcca gtgaggacac atctccgcaa catgatcatt gtccctgaga tgattggcag 300

ccttatcggg gtctacaatg gcaagacctt caaccagggt gagattaagc ctgagatgat 360

tggccattac cttgcagagt tctctatctc ctacaagcca gtgaagcacg gtaggcccgg 420

ta 422

<210> 10112

<211> 469

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C6

<400> 10112

gcctgcaggt aacgggtccta aattccccggg tcgacactca tattgaagac catctctgcg 60
 ttgaaccagc caacgagtag atccagagct gtgacattgt tgccttcaac aaaatctaaa 120
 tcttcctgag gcaggtgatg gcggtgggtg gacaatgcag cagcacaata tatctacagt 180
 tttccgttgc cgtgatggtg tcgtagctaa agcaagcata acatatctgc cctgtgaggt 240
 ttttggacct taggtcgagt tgagtcgtag tgttattact gagtggtatt tgcttcgtat 300
 gaaatgagac aatgtgggtg gattcctgtt gctattctct ttctctgccg tcttcacgc 360
 agctacctac ttgtgtgtgc tcgcctactt tctcccttaa cagatgcatg gacgctggag 420
 ctgttttgtc gtttgaatta caagcatggc gcctgtgccg cgttctcca 469

<210> 10113
 <211> 432
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C7

<400> 10113

gcctgcaggt tacgggtccag aattccccggg tcgactacat gatcatgtta agcaatatga 60
 caatgatgga gtgtgtcata ataaacgaaa cgggtggaaag ttgcatggca atatatctcg 120
 gaatggctat ggaaatgcca taataggtag gtatgggtggc tgtttaggta tatgggtgggt 180
 gtatgatacc ggcgaaaggt gcacgggtatt agagaggcta gcaaagggtg aagggtgaga 240
 gtgcgtataa tccatggact caacattagt cataaagaac tcatatactt attgcaaaaa 300
 tctacaagtt atcaaagcaa agtattacgc gcatgctcct aggggggataa attggttagga 360
 aaagaccatc gctcgtcccc ggccgccact cataaggaag acaatcagaa aatacatcat 420
 gctccgactt ca 432

<210> 10114
 <211> 462
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C9

<400> 10114

gtacctatcc gaaattcccc ggctgaccgc ctaaaacaag acgtctgtag aagaattaac 60

ccgctttcaa ctttcatttc aagagaaata aacgattcaa tgataaaata ataatactag 120
tctattatgg ttcgagagga ggtagcagga tccactcaaa cactacagtg gaagtgtgtt 180
gaatcaagag tagatagtaa gcgcctttat tatggtcgtt tcattctgtc cccgcttaga 240
aaaggccaag cggacaccgt cggatttgcc ttgcgaagag ctttacttgg agaaatagaa 300
ggaacatgta tcacacgtgc aaaatttggg agcgtgccgc acgaatattc tacaatagca 360
ggatttgaag aatccgtaca agaaatttta ctaaatttga aagaaattgt attgagaagt 420
aatctctatg gagttagaga cgcattccatt tgcgtcaaac gt 462

<210> 10115

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D1

<400> 10115

cgcctgtcgg taccgtcct aaattccagg gtccacataa caaccaaag atctcaatat 60
cttccatgct acacacacta taggcggttc ccaaacagaa tggtaaagtt tgtactccca 120
ccactaacia acatcaatcc atggcttgtt tgaaacaacg ggtgtcgtcc aactaacaac 180
aatcctgggg gagttttgtt tgcaattatt ttgatttgat ttgagcatgg gattgggcat 240
cccgtttacc ggccatttcc tcatgagtga tgagcggagt ccaactcatg tgagaataac 300
ccacctagaa tggaagatat agacaaccct aattgacaca tgagctattt gagcatacaa 360
aacagaattt catttgaagg tttagagttt ggcacatata acatatactt ggaac 415

<210> 10116

<211> 463

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D11

<400> 10116

cctgccggta ccgatccgta aattcccggg tccacctaga aatgactaca tgtagtcgc 60
ctgagaaata gtcatgccga attaaaaaat gttccaaaac aaataatgga tatcattata 120
catgaacggg ataaaaggga actgggtgcc tttgggtgcaa atgcacacca tgcaagattg 180

gctacattat ttttcaatat ttccctaacc gaatttccaa tagtttatgc atgaagtttt 240
catgtaccgt ggtgcttggg aatacatcat tctaagcaca tgatgttcat gcgcacatat 300
atgtatgtca aaatccattt aaatttcaca gctgtattgt tctatgatct gtccaaatgg 360
atttaaaaga taaggaatat tacaagtaga tatatatgca taacttcaga aactgaagac 420
atctttattg ccttaattag cttactggcc gatggaaaat tgt 463

<210> 10117
<211> 438
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D3

<400> 10117

gcctgtcggg accggtccta aattccaggg tcgacaatat gcttcggagc aatgatgaac 60
ttgtcgtcaa gggcactgct aagctcctgc ctggcatggt ggactactca aggcttgttg 120
atgtgaatgc tcaggatcct tccagtgggc ctatcaattc agtgcagttt cataggaatg 180
gtcagttgat gcttggttga ggccctggaca agcatctgag gtttttccag attgacggca 240
agagaaaccc caagatccag agcatatttg tcgaggactg tccaattcag aaggcggcct 300
ttctacctga tggctctgag gtgacccctt ccggcaggag gaagttcttc tactcatttg 360
atctggtgaa agctgctggt agtaagattg gacccttgac tgggcgtgag gagaaaagcc 420
tggagagctt tgagatat 438

<210> 10118
<211> 435
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D5

<400> 10118

gtaccggtcc agaattcccg ggtcgacaag actatggaag aaattaatga acagacagaa 60
aacatgaaac aaatacaaga tgctctgtca gctcctcttg gagcttctgc tgattttgac 120
gaggatgaac tggaagcgga gctggaagag ttggagggag cagagttgga atcccaacta 180
ctggagcctg ttgtaactat tcctattcat acgacgcccg tcccaggcaa ggcgcaacca 240

actcgccctg ctccacagaa agcatcggct gaggaggatg agcttgctgc actgcaagct 300
gaaatggcat tgtgatcagg cccccagtga atgaagaggt gaaatgtaca aatgattggc 360
tggacggtac gctgtcgag gcgagtcctg gctacacata tatttgcccg tgtgtataat 420
ctttggtggg agaca 435

<210> 10119

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D6

<400> 10119

ggtccagaat tcccgggtcg acggtggact tgtaattagg aaaaaataa tcgggttgca 60
tttgcgagtt gaggggtggac ttgcaattga gactaaaaaa agatcagttg cgagtcgagg 120
atgaacttgc aaccggaaca aaaaaatgtt gggcatgaac ttaaaattgg gacaaaaaag 180
tttcgagccc caattacatg gacttgcaac tgagacaaaa aatgtcaaag tccagttgcg 240
ggtcgaggtt ggggttgcaa ctatgacaaa agaaaatcga cccccgttgc aagttgaggt 300
tagagttgca acttggacaa aaaattacag accttttcat gaaaatttta aaaagaaaag 360
gtgaaaaggt gaaaaaata taaaaatcat gaatttaaaa aaaagaattt gaacaaaaaa 420
gaacgagaga agcag 435

<210> 10120

<211> 468

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D9

<400> 10120

cctgccggtg ccgatccgaa attcccgggt ccacgacgac agaagaggtt cgagaccacc 60
aagtactact gcaccgtcat tgatgccctt ggtcaccgtg acttcatcaa gaacatgatt 120
actggtacct ccaggctga ctgtgctgtg ctcatcattg actccaccac tgggtggtttt 180
gaggctggta tctccaagga tggccagacc cgtgagcacg ccttccttgc tttcaccctt 240
ggagtgaagc agatgatctg ctgctgcaac aagatggacg ccaccactcc caagtactca 300

aaggcccgtt atgaggaaat tgtcaaggaa gtctcttcgt acctgaagaa tgtcggctac 360
 accctgacaa gggtcccttc gttcccatct ctgggtttga gggtgacaac atgattgaga 420
 ggtccaccaa ccttgactgg tacaaaggcc ctactcttct tgaggctc 468

<210> 10121
 <211> 453
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-046-Q1-E1-E10
 <400> 10121

cctgccggtg ccgagtcgga aattcccggg tccacgatga ggatgcagga tgggcatcgt 60
 cgatgtcgag aacaaaatgc ttaattatga aacaaaatta ataaacactt agcaaaatgt 120
 ggcattgacct ttgctaaaaa caggacatat agagcgcttg aaattttcca gaacgtaaac 180
 gaattgacat ttctggcaaa acatacgcca ctcggaaaaa tatgacatgt ccaaaatgtg 240
 acatgttcaa aatatgcatg acatgtacac ttcaaatttg cgtattaaca ggaaaaatgt 300
 ctttaactaa aaaaataaca acaattgctt taactaaaaa aacacctaga attttggtta 360
 ctacaccta aacaactaaa acacctaataa ttctgttaac tacacctaata acacagcaat 420
 ggacacacga aaagaaacgg gcgctctaga gga 453

<210> 10122
 <211> 414
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-046-Q1-E1-E3
 <400> 10122

cgctgtcgg taccgcgtcc taaattccag ggtccacctc ttcgagaaaa gcaaccaaga 60
 ctgagaagat tcgttaggat ttctgaacca gaccttcccc ctatatcccc ctcttaaata 120
 tcgggacgag atttcttgta gtggaggaga attgtgacgc ccgggtaatt aagctacagt 180
 aatccaacga taatcatgcc acgtcacccc gggtactatt gataatctac cgtttagtcca 240
 aaaccgagtc aaattcaaac attaaaataa agttaaatta taaaagtgtt caaaatatta 300
 aactaaaatg ttcgggctat gccaaaaatg gcatacgtaa ttatagtgcg gcaaacatat 360

ttttttgaat gtctaaatga ttgaaaatga aatagaacag aacataaaat agat 414

<210> 10123

<211> 362

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-F1

<400> 10123

cctgtcggta ccgctcctg aattccaggg tcgaccagct gatatcactt agcgatagtt 60
agcgtgtgag gatggagatg gcacgttgtc acctatactt gtagcacgtc tcattttctt 120
tcttacctcg ggtgctaaat acagagaatc cgtttatatg tgccacgcat ggcctcatga 180
ttcccctgat ttattcagta ccttgagggt cgggagttgc atcttgcaag tcaagtgaga 240
tgtaaatgta aattgttgga tcacatcaca gaaaaatact cctacgtagt atataaatat 300
aaatgtatgc aagtatgtat tagctgcatt aatgtgagac gaacacttga aggtgacttg 360
ag 362

<210> 10124

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-F10

<400> 10124

cctgcaggta ccgagtccga aattcccggg tcgacttaga cttcgtgaag tgtaagtcga 60
atgacatcac ctataactga ttttgcccggt ttgcctccc tggtagtggt gttctaattt 120
ctcccgctct gggcctttct ttatctgttt ttttatgtct gagttgtttg tttgtttgta 180
tttttaccaa aagggaagaa aaactacaca tgaagcccat ctgtaccaa taaaatgacg 240
agaaatcctt tcgttccttg tttcttctac attcttcttc tttttgtcaa aaggagcctc 300
attaaaaaaaa ttgcacgcac aagtcggcct ggtctatgtg tgtgcgcatt ttgggttagag 360
ttgggttaaa ttggtgaaac aatcagctcc gttcatcagt tataac 406

<210> 10125

<211> 225

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-F3

<400> 10125

```
acgcctgtcg gtacggctcc taaattccag ggtcgacgat gttgatagaa catccttccc   60
agccatttct acggcgctcg aaatcttgcc aaatccatca agcgaagcaa gaataacctc  120
tccaggcaat aggctgaaga acttcttgcc agcttttgag ttaaccaatg agcttgtaac  180
agagctagta agcttcacaa ctccagacag tattccagtt gccac                    225
```

<210> 10126

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-F4

<400> 10126

```
gtcgaccctg tctacatacg tgccaagatc ttgggcagcg ctggggaccg gcaagtcacg   60
agttcttacc tcgaaggcgt cattctggca aaccgagata aggacaactt cctcgtgcct  120
tactttcccg agtaagtctt cccctcaacc gcccgtaac atatgaattc ctagatttcg  180
atcgtttttc ttttaacatt ccgtgttttc tgcagtgaca cacattccac gctcatcctc  240
ctaagcccca aatattccat ggccacgtat ttcgaccggg accgtcagtc gaacgtagac  300
tacacaaatg tcaagaaggt tcttgatgat gttctccccg gctacgtcaa atctggaggc  360
accttcacca ggcctattcg taagtacggc aagcacgtgt tctcgacaaa tacga        415
```

<210> 10127

<211> 274

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-F8

<400> 10127

```
gttacgggcc agaattcccg ggtcgacgga agatgggaat ggcagggtccc acgcattcat   60
tccttctgac gatgtgatgg gggaagatgg taacgataga tactagaccg tgcgcaggca  120
ctacacattc cggcatgcct acacccaatg gccgttatgc cactacctta catcgtgtct  180
```

gttacgccgc atacggtaag tctatatact tacacgtcta ttgcatttgt tgcgccagaa 240
aggcatttca ggttgatcgg catactcagg ttg 274

<210> 10128
<211> 413
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-G1

<400> 10128

acgcctgtcg gtacggctcc gtaaattcca gggtcgacgg gactgtccat gtttcaaggg 60
cgcaaccgag ggtccttggg atcgaccaag tgaaatccct gcgtgaacgg cttgatacct 120
gggtcgggaa ggtgcacact actttgctgt ctgtcgaagc cgaaacacc gacctggtag 180
cttcgtgatg ttcttttggg cccctgttga acgatggctg tgaccttaca caaagtgaac 240
agatggattt gaaatttgta ttgagtccta cgctgcaatc tcgcaaaacc tagagagatt 300
tgtgtgtaaa catgacgac agtcttggtt tgttttgacg tggaactcaa tgtatgcgca 360
acggctcttt cctgacgcac caaagtgaag tgaaatcggg gtccctgtttg cgt 413

<210> 10129
<211> 399
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-G3

<400> 10129

cgcttgccgg taccgcgtcc taaattccag ggtccaccct ccatctcgac ctgaggctcc 60
ggggaggtat catcgagcca tccctgcagg cgcttgcccg caagtacaac caggagaaga 120
tgatctgccg caaatgctat gcgcgcctgc accctagggc tgtcaactgc cgcaagaaga 180
agtgtggcca cagcaaccag ctgaggccca agaagaagat caagaactag agtgccacta 240
gtcagtttca tgggccggtt gaatccatcg cgtgtcggag tttatgctat tatcgtctcg 300
tttgcgttg aaccttattt tactttgctt tcagcctcgt atcgttgtgg tgataattga 360
cagtattggt atatggtagc agacctataa ttttgccgt 399

<210> 10130

<211> 389
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-G5

<400> 10130

cgctgcccgg tatacgggcc agaattcccg ggctgacaaa ggaactgatg gcttgtattt 60
cagtgatcta ctgttggtt accatttgtt tttatagagg gtcgtgcaac ttgattgaag 120
atgggaagat gatgagaacc gcctgatgaa gaagctgctg agaaccagcg ccggcgctctc 180
ccagccagcg cctgtgaatg gaattgacgg ccagccagtt ttattagcga tggggcctgt 240
atataagcaa tgaaaaaggc gcgagggcga gcagcaaac gcagaactgg cgccagaaaa 300
gttggtgaga agcgagtggg cgggaaaaag ttgttgcaat cacgcatata gcagacgcgt 360
ttgtgaaaaa acggataaag ctcgttttt 389

<210> 10131
<211> 361
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-G7

<400> 10131

gcctgcaggt aacgggtcta aattcccggg tcgacttcca acaacgagat attcatcatc 60
tcatcgaaag acgggacacc tttgcctcta tcaagtggta tcagatttcc aggttgctcg 120
gtgagatttt acagtttttc gtagtttaga tcgagtctgt tcttcatacc tacagtccac 180
gaaggagcca caagaagcaa attagggta gttcatcata tccgagccaa tctgagcctt 240
tgcacaatct ttttaggggt tttgctttgt tgaacttgca gttgcatcgt cgtgtcaagt 300
tgctggtctt agagtctagt ctttagagt ttcgagttcg ggtcataagt tgtcacgccg 360
c 361

<210> 10132
<211> 389
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-G8

<400> 10132

attccccgggt cgacgaatgc gctggagcat gggcgagag tgggggcttc gccgcggcaa 60
gcgccttgcc gcggtcattg tcttgctgca cccgaaagct tgctgctcgt cgggtcttgc 120
cgggacgcgc ggcgcgtcgc ggcaagtctt ttgaaatgcc ttggttgcc ttccccggcaa 180
gctcctcttg cgggggcctt gtccttcccg gcaagctcct cttgccagag tcttgctctt 240
tcagtgaata cactttgttc ttgaatggca tcaatacag ctacggagga tcttggggga 300
cgccccggcaa gccctgccac tgggtgctgc gactgcccgt gcacaagttc gggatactaa 360
ggtacccta ctttagtaca ccgacagt 389

<210> 10133

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-H1

<400> 10133

acgcctgccg gtaccgggtcc gaaattcccg ggtcgacttt ttttttttat tttttttttt 60
tttagcccc tcgctccctc tccacacccc tgagctcgt cccgaccca tggagctgca 120
caccgacgca tgcgaccaga ggaggcccca gtcgacggaa gaaatgtttc caccacgag 180
aaggcagatg tgggcgcgac gtattgcct gtcacagacg gcttcatttg ctgtcagttc 240
ccacggaata cggcctatat ttatggctaa acagcagcac tacgccgtct cagcagacg 300
caggcggaag cacatcggcg cacaggacta gcatgcagtg taccgtgcag gttaaataaa 360
ggaccctctc cccacaaaa aagcaaaggg caggaggaa aaaaaagcgg gcctctaaag 420
gatccaagct ta 432

<210> 10134

<211> 249

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-A10

<400> 10134

tccccggctg acgagacaca tatgaacaat cttcatcatc aagtgcagc aacccttgca 60

caagatcgcc atgcaggcca acgacgccag atgaaaaccg acccatgagc ttatcagccg 120
 ttgcaagttt ctactcatta gtaaatacaca caatacacga tatcataaga gagctaacag 180
 atatagacgg tatcgattct accgtaaaca tgtgaatgca tcagagagta tcatccaatt 240
 agtatacac 249

<210> 10135
 <211> 413
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-047-Q1-E1-B11
 <400> 10135

cgcctgcggg taccgggtcct agattcccgg gtcgaccctt tctacatgcg tgccaagatc 60
 ttgggcagcg ctggggaccg gcaagtcgcg agttottacc tcgaaggcgt cattctggca 120
 aaccaagata aggataactt cctcgtgcct tactttcccg agtaagtcct cccctcaacc 180
 ggcccataac atatgaattc ttacatttcg atcggttttc ttttaacatt ccatgttttc 240
 tgcagtgaca cacgttgac gtcctcctc ctaagcccca aatattccat ggccacgtat 300
 ttcgaccggg accgttagtc gaacatagac tacacaaatg tcaagaagg tcttgatgat 360
 gttctccccg gctacgcaa atctggaggc accttcacca ggctagtca taa 413

<210> 10136
 <211> 447
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-047-Q1-E1-B9
 <400> 10136

gggccgaaat tcccgggtcg actagaaatt ttgatcggtg gaagactcca tgatatctgc 60
 tccagcttcg tcttcgtaat catcatcact actgtcgggg tgggagtcgg tgtcgtcgat 120
 gatgatgtag tcttcagaac ggatgtcctc ctcagggtg ggatctccca tgaatacttc 180
 tagcttcttc ttcagggtctt cattcttctc cagtaatact acaatttcct cctcatatcc 240
 atcgcgtgta gacttggtt cctcttcaag ctccatgttc ctggatcatca ccttcagatc 300
 tatcatgcgg gcgcacattt gggtctcctg gcgacgaatg tgctggttta actcctggat 360

gaaggctgca atggacttgt cctccgggt gctgatcatc tcccattgct catctcggcg 420
cccacatatc agatagatag tgtcctt 447

<210> 10137
<211> 465
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-047-Q1-E1-C10

<400> 10137

cgctgcccgg taccgggtccg aaattcccgg gtcgactccg aggagctcac tgtggaggag 60
cgcaacctcc tctctgttgc atacaagaat gtgattggag cccgccgtgt ctcatggcgc 120
accatctcct ccattgagca gaaggaggag agccgtggca atgaggaccg ggtcacgctc 180
atcaaggaat accgtggcaa gatcgaaact gagcttagca agatctgtga tggcatcctc 240
aagctgctcg aaaccacact tgtcccgtcc tccactgcc ctgagtccaa ggtcttctat 300
cttaagatga agggtgacta ctacaggtat cttgcggaat tcaagagtgg gcctgagagg 360
aaggatgctg ctgagaatac catggtggca tacaaggctg ctcangatat tgctttggct 420
gagctggctc caactcatcc gattaggctt gggctggcac taaac 465

<210> 10138
<211> 353
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-C12

<400> 10138

cctgccggtg cgggtccgaa cttcccgggt cgacttgccc gtcctcccga tcctcctgtt 60
tggatgttgg ttcgatgggg tcttcttgggt cttcggcggtt ttcgagagta tcattgtctc 120
atgtgccggt attgctgtcc tttccgcgac gcgatttaga gcggcgccga ttacatcgac 180
gcttttgggtg tatctcacga ggtttgtcct cgtctggacc attctcatca tcgccgtcgc 240
attctttaag tgtgcccacc atctacacat cgtatgatga attggccgctc cagcgtccgg 300
taaagtgtgg gttttggggc tgctcctctc tggcatcgctc gtccatacca tcg 353

<210> 10139
 <211> 387
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-047-Q1-E1-D10

 <400> 10139

ccgggtcgac cggatgctca gaagacgaca gaaggggggt gccattgctg tgggagctcc 60
 agctgctgca tctggtggtg ccgcagcacc tgctgctgag tcattgacgg aggagaaggt 120
 tgatcagaac gaacaatctg atgaacacat gggtttcagt ctgttcgact aagcgcttca 180
 gttccacccc cctaccctct gtttacccta gtatctgtcg tgtgtggcct gccacatcag 240
 cgctgcata atatctagag acctgaagtt cgtgctatct tgcattgggac aatgtatatg 300
 ttctactacct tcgtatgtga atgtgttact gcttccatag ccttgagaag ttgaatgata 360
 catcgctgga gttatgtctc tcgcaaa 387

<210> 10140
 <211> 370
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-047-Q1-E1-E11

 <400> 10140

aattccccggg tcgacgacaa gggggacacc gaggggggtga tcacgctgag ggacataatc 60
 tccaagctgg tgcacgagcc acggcattac tttggggatt tcttcgacgg cgtcgttccc 120
 ctaccacaaa acagtaccgt atgacaaact ctgtactact atgtacaaca aaatgtacat 180
 tatctttttg ctcatcccca atcttcttct caagttgggg ttggggatgc tgttgctgtg 240
 gagagacctc tgtggggacg actaatgaac caatgggggtg gatgacagtg tgcgttgaat 300
 aatctgagaa ttgcctgagc tttgcgatga gaaccgtctg aagaatttca caacaaaaaa 360
 gcgggcgctc 370

<210> 10141
 <211> 423
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-047-Q1-E1-E12

<400> 10141

gggtccgaggc tcccgggtcg acttcaacca aagcgaaatc caccatctca tcgaaagacg 60
ggacaccttt gcctctatca agtggtatca gatttccagg ttgctcgggtg agattttaca 120
gttttttcgta gtttagatcg agtctgttct tcatacctat agtccacgaa aaagccagga 180
aaaaattagg gttagtcat cccatccgga gcaatctgag ccttgcataa tcttttcgggt 240
atttgctttg ttgaatttgc ggttgcacg tcgtgttcag ttgctggtct tagcgtctag 300
tcttttagag tttcaggttc tgttcacaag ttgtcacgcc gtcggtgcac catcatcatc 360
gcccctgcc tctaccacca gcgctctgaa tccgtatcca tataccacca gcaatccgtg 420
gtc 423

<210> 10142

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-E9

<400> 10142

cgggtcgacg ttgataaggg tggtcggtac gccggatcaa acacgtgcaa atactgtata 60
ccgcaacaca cagacacaca ccgtacacca tgactgtgcc acacgtacat acatgcaagc 120
atacctgttc gaccagcgggt acatggtcgt ccgcatgtgg agagtaccga cgaggataag 180
cgcgttccag acggtcatcg atgtcgatgt ccgccgtacg ctgaccggca ggccttaagt 240
ctccgtgctg actgtaccta agctgggtcg tcgtcgtaca cgacacgtcg atcatttcat 300
acgtgctgta gaaacaacgc atactgttca accgtggaga caatgtcgat cgggatctgg 360
atggatgtgc actgtggcga acaaccaacc agactgcac tttctgatgg ccgtatgcat 420
ctttctgatg 430

<210> 10143

<211> 322

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-F10

<400> 10143

gcctgccggt accggtccag gattccccggg tcgaccgaac cgggtgcacga ggtgatgcac 60
gtcatccacg tcgcattgct gtgcacggtc gagcacagca tgcagcgctc gacgatgcgg 120
gaggctcgtgc agatcctcag tgagctccca gggccagctg gtaatcaacg tgacgaagat 180
gagcttcacc tcgccggcta acgccctgag tccaaccctc ctgcctcaga tattttctaca 240
gaaacaccaa ctggcaatcc gatagatcag caaccgcagc agcagcacac tagctcggag 300
tcgtcgcttc atcctgatct ca 322

<210> 10144
<211> 443
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-F9

<400> 10144

gtaccggtcc ggaattcccg ggtcgacaag acgacagaag ggggtttctg ctcttacgct 60
tttggcttag ggttgatggt gcgctgatga gattgagggg taccggttta cattgttctt 120
ttggaagtaa ggaagcaaac ccggttgtag tgcgtgaact ttgctggaga gaagcaacat 180
ttgctgccat gtctgcggag gggatcctt ccgattctgc ggcatacgca gaccgaatc 240
ttgtcgcccc caagctgccc gtggtgatgc agaagacca gaagctgaag ataccagtt 300
aacctgctaa gacacctcta ccgtgtgttc ggtacatcca tgagtgggtca accgtgggtca 360
caactctatt tgcattgtgt gtagatgtga gctatcggtg ctttaccat ttatcttgag 420
gcccttgcca ctggcaagta atg 443

<210> 10145
<211> 375
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-A12

<400> 10145

aattccccggg ctgcacaacc tcattagagc cgccgcagtt tttccatcat ggcaactgctc 60
cgtaagaat acagcattcc tcaaatcatt ccgtcagagg gcttcaaacg ggatcctggc 120
gctacattat gcgaggcagt ggatggggac aaagctacag agaactctat cgctgggatat 180

gagatcaacc agtccaggat gattcttttt tatgaagttt tgggattagc caagaacatc 240
 tgggaactcc ctgcaaaatt caagatttgc cacttgatt gttgacaggt gggccaagaa 300
 atttggcaag attatcgcta tcaacaattc aacatggaca caatcaaca atccgaaagg 360
 ggggggggca tctgc 375

<210> 10146
 <211> 422
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-001-Q1-E1-A3
 <400> 10146

ccgggcccgc ctcgagccaa atgcacatgt caagcaggcg atgaatgaga tcaatgcagc 60
 tgcaaggatg aggggtggctg caaacgagaa ggcggaggct gagaagattg tccagatcaa 120
 gcgtgccgag ggtgaagcag aggccaagta cctgtctggc ctcggtatcg cccgccagcg 180
 ccaggccatt gtggatggcc tgagggacag cgtcctgggc ttctcagtca atgtgcctgg 240
 caccactgca aaggatgtga tggacatggt gctgatcacc cagtacttcg atactatgaa 300
 agagattggc gcgtcctcca agtcctcggc ggtgttcac ccccatggcc ctggtgcggt 360
 gcgcgacatc gccacgcaga ttcgtggacg tcttcttcaa gggcagtcctg cctctgacaa 420
 ct 422

<210> 10147
 <211> 170
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-001-Q1-E1-A4
 <400> 10147

tgcagccacg gtctagctag ccgggtcgac cgtgtcacgc tgtaaggatga actccagcac 60
 atctcctgcg acgacatcgc cttgcagatt ctggaggatg ttgacaacgt cgccgcatga 120
 gaggcctccc ggctcgatgt gatagacacc aggagcgaat gccgggtctg 170

<210> 10148
 <211> 432

<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-001-Q1-E1-A5

<400> 10148

aattcccggg cgcacatgat atgcaccgga tttaggtccg gagcggctgc aggggtggtg 60
tcccgaaatc tgtccgacaa cagatttaag tcatgtcat cgcggctgtt cggcactcct 120
gatgtggggc cgaatccgtt gaagatcaag tctccgcgga tatcgttcgt gtaattcaag 180
tttccaaacc tgacctaata gccaggggag tagctgtcga tctactccag atggccaagc 240
gaattggccc gcagtgcgaa gccgccgaac acgaaaatct gtccggggag aaaagtctca 300
ccctagaccg cattgttgaa gattgaaggg gccatcaagc cttatagcaa tgacacagag 360
gaactctcaa tgaaagcacc aatgtcgggtg tcaaaaacgg cggatcttgg gtanggggtc 420
ccgaactgtg cg 432

<210> 10149
<211> 401
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-A6

<400> 10149

ccggttttga caccacggcg tggagcttca tttccgactg aggggtagaa gggggatttc 60
gcgtgtctgg gctgcgggag cgatttcgga tgaggaggga gttctcgcgc gcgtccaaat 120
tttgggataa caaggcgcga cgcgggttga agaagcggga gtttcaaagc aggtgagaca 180
aaagatactc gagcttgaaa atttcgggat aacaagggtc ggattccttg ttcggcagaa 240
caaacttaac gtgtaaaaaa aatcatacaa gacacaagag agtcatgtcc ccctttacta 300
tattgctata gatgccattg aaaaaactac aagaaaaatg taaaaaaaaa ttgggagaac 360
atgattaacc tgcacagtac caaatccaat ccacttccc c 401

<210> 10150
<211> 403
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B1

<400> 10150

ctggccaaat gaacggtcaa ccggttgactt ttgacaaaaa aatcatagaa aatcctgaat 60
ttaaaacagt tcatgacatt tgaaagaaag tccagaaact tcaaaaaagt tcatgaagtt 120
gaaaaagtta attgattttg aaaaaaatcc aacacaacta aaagaaataa ttcattcaatt 180
ttgaaaaaaa gtaagttcat ctgttttgga aaaaattaaa tcaaaaatga agaaagagtt 240
catcgatttt gaaaaatggt catcgaattt ggaaaaagtt tatcgatttt gaaaaaagag 300
tgtgtctata gtgaaaaaag ttcattcggtt tttaaaaaat tagttgattt aagaaaagaa 360
ttcaatcggg tttttaaaaa attagttgat ttttaaaaaa gag 403

<210> 10151

<211> 353

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B2

<400> 10151

ccgggcgagg cagacgacag aagggaagcc tactggcaa gaccatcacc ctggagggtg 60
agtcctcaga caccattgac aatgtgaagg ccaagatcca ggacgaggag ggcattcccc 120
cggaccagca ggggcgcatc ctgcccgga agcagcttga ggatggccgc acccttgagg 180
gctacaacat ccagaaggag tccacccttc acttggtgct ccgcctgcgt ggtggccagt 240
aagtcctgg cgatggatct ctgattctgt cttcgggtgc cttcaatgga gtctcgtctt 300
gtgcctatca ttgcctgatt tggccttggt tctgtaccgt gactgtgatg cag 353

<210> 10152

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B3

<400> 10152

cgacagaaag ggagtgtagt gcgtgggttt gatgacttgt agatttttgc aaaacgtatg 60
tgggttcttt atgactaatg ttgagttcat ggattatag cactctcacc cttocagcag 120

tgctagcctc tcttgtgccg cacaactttc gccggtacca taaaccocatc atttatcttc 180
 ctcagaacag ccaccatacc tacctattat ggcattttcca tagccattcc gagatatatt 240
 gccatgcaac tttccaccgt tccgtttatt atgacaggct tcatcatact catattgctt 300
 tgcataatca agtagttgac atcgtatttg tgtcatggcc tccattcata attttttata 360
 catgtcactc ttgattcatt gcacatcccg atacaaggct gggagcattc acagagcgtc 420
 catattttgt ttcaa 435

<210> 10153
 <211> 307
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B4

<400> 10153

tgatgacagg aattgggtcat tcacatgggt agtcataaaa tcctacataa aacttgtaga 60
 tcactgaata tgatatgttt gattccttgc aatagttttg cgatataaag gtgggtgatat 120
 tagagttgtg ctagttgagt aattgtgaaa ttgatcatta cttgtgttga ggtttacaag 180
 tcacgtagca tgcacgtatg gtgaaccatt atgtaacgaa gttggcgcat gaggtgctct 240
 ttgattgctt tccttatgaa tggcagtcga agacaagcga tgggtcttttc ctaccaatct 300
 atccctc 307

<210> 10154
 <211> 404
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-001-Q1-E1-B5

<400> 10154

gaaaatgatg atgaacttgt gcctggtgac tcgaagccaa aactggacct gcagagtgat 60
 aataagaaag gaattcaagt gcagctcaac ctgaagagca atggcaacgg gtcgagcgca 120
 aagaaggcgc cagcagcaag atcaaaagct cctgggtctg cagggaaggc tgtcggaggc 180
 tcaggcggga agcgggaagag gtagecctacc gccgccgcac aatgatgact ggctggaage 240
 aacagacccc agatagtttg tggctctgtg tttggtttct cctgttacct cagttgttcn 300

catttgtagg gaaaacctgt ttgcttgacac ttcatttgct cttgtgtttc tcgccgctgc 360
 cggaggggct tgtttagcgt gtgagctttt tctcctgacg caat 404

<210> 10155
 <211> 377
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B8

<400> 10155

gagactttca agccggcgat agaacaagat atgggcagtg ctgaggaggc gtatgccggg 60
 accaagtcac gggcgccctaa caacggcatc ctcatcagtg ggtgccaaac cagccagaca 120
 tcagcagatg caaccatacc ggggggtacg tcctttggcg cgatgagcaa tgccatccag 180
 gccattctcg cgagcgatga tggaaagata acaaacaagg atctcgatcat gaaagcgcgt 240
 gcagcgctgt ccaagcaagg atacactcag cagcctgggc tctactgcag tgatgagcat 300
 gttcatgtgg ctttcatctg ctgaaacatg gattgatgtt gtgctttttt ttcctttctg 360
 tgatgagctg tgcacga 377

<210> 10156
 <211> 346
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-B9

<400> 10156

gactcactca gaatatcgga gaggtatctc taagccctct cggtaataca catcataaga 60
 agccttgcaa gcaaagtgcac taaggagtta gttgcaagat gatgtattac agaacgagta 120
 aagagacttg ccggtaacga gattgaacta ggtatgaaga ttaccgacga tcaaactctg 180
 ggtaagtaac ataccgatta acaaagggaa ttatgtatgt tgcataaagg ttgcaccgat 240
 agagatcttc gtagaatatg taggagccaa tatgggaatt atgtatgttg tcataaagg 300
 acgctatttg ttattgaccg gagaggtgtc tcagtcagtg ctacat 346

<210> 10157
 <211> 358

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-001-Q1-E1-C1

 <400> 10157

 cgggccgacc tgaaggccaa caaaaagaag attaaggccg ctgtcaagaa aatgtacgac 60
 attcaggcca agaaggttaa caccctcatc aggctgatg gcaagaagaa ggcgtacgtg 120
 aagctgacac cagactacga tgctcttgat gtggccaaca agatcggcat catataagtc 180
 agagggaggg tcctgcagta ggcgcttggt tcgtggtttc ttgtgttatt ggaattttgt 240
 agttgttact tagcaaaggg gctcagtggc tccattgcct accatatcgc tgcacacttt 300
 catgaatttg atgcaatcga agtgacttgt tgttgagctt tgcgtttggt cttaaaaa 358

<210> 10158
 <211> 366
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-001-Q1-E1-C2

 <400> 10158

 ccgggtcgac tcgccgactt agaaagagca aacctagtca cgctacaaca catacacgtg 60
 gtcgatcctt ggggtggtaga gcacaagacc tttattaaga aggcgtacaa tgaccgatgc 120
 caagcagagg acggacgttc tgctgcgtca agcagccacc tggcggtcag aagggtgcct 180
 actacgccat ccatcacatg ctggcgatcg tacgggacca tcatcaactt ctgctaccga 240
 gtacactcac agattggggc gcgagcgtgt tggcaatcca agaccgggac atcagacaac 300
 aattctttcg catcgagtcg gagtttgagg aatcatcca tcaagatgtc cttcgtacct 360
 cggggc 366

<210> 10159
 <211> 385
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-001-Q1-E1-C3

 <400> 10159

 atggaaaggg tcagagttga aggtgccggt ggttgtttgc gcaagcacat tagcactcgt 60

gtcacctttt gttgtcagaa tggcaaaact tagtttagcat agtgtttcag gtgtttcaat 120
 taatagtgtg tcattttttt gaggtactga tgctctcatg ttgtaagcgc tcaccgtgat 180
 taggtttctt tgatggcggg gcagagttgc agagtgtcc aactgaaaga tcccttggtc 240
 gccgtctcgt gtactggact atatccttcg tcactttagg taactacggg tacgggaatg 300
 gtatggcggt ggaggacacg tcaatcgccc acgatcacct gtcagaacac agcagcagta 360
 catttttagac gtaatgctat gtgta 385

<210> 10160

<211> 406

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-C8

<400> 10160

aagcgtgggt ttgttgcac caactctaag ggtgaccctg ccaaggaggc aaccaacttc 60
 acctctcagg tcatcatcat gaaccaccct ggtcagatcg gcaacggcta cgccccagtg 120
 ctggactgcc acacctcca cattgctgtc aagtttgctg agctggtgac caagattgac 180
 aggcgatctg gtaaggagat tgaggctgcg cccaagttcc tgaagaacgg tgacgctggt 240
 attgtgaaga tgattccac caagcccatg gttgtggaga ccttcgccac ctaccacact 300
 cttggccgct tcgctgtgcg tgacatgaga caaacgggtg ctggttggtg catcaacggc 360
 gttgagaaga aggacccac cggcgccaac gttaccaagg ctgcca 406

<210> 10161

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-D1

<400> 10161

agcacggtct agaattccgg gccgacatcg agccaaatgc acatgtcaag caggcgatga 60
 atgagatcaa tgcagctgca aggatgaggg tggctgcaaa cgagaaggcg gaggtgaga 120
 agattgtcca gatcaagcgt gccgaggggtg aagcagaggc caagtacctg tctggcctcg 180
 gtatcgcccc ccagcgccag gccattgtgg atggcctgag ggacagcgtc ctgggcttct 240

cagtcaatgt gcctggcacc actgcaaagg acgtgatgga catggtgctg atcaccagct 300
 actttgatac tatgaaagag gtcggcgctg cctccaagtc ctggcggtg ttcattcccc 360
 atggccctgg tgcggtgctg gacatcgcca cgcaga 396

<210> 10162
 <211> 377
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-001-Q1-E1-D2
 <400> 10162

cggtgcgaca ggacgttaac caactttgag agccaatctg aaaccattct ctcaagcatt 60
 cacatacaag cagctttgca ttacatccac aattaatctt gtagctagag ctgcgacaat 120
 taatttggat cgagagcaca gattcacgtg aaattcaatc agatgttagt atcaaagaaa 180
 attagtaagt gaaagtgcta aaagaaacat aacataacaa tggggaaaac cggtgcgcgt 240
 aactcctgat tgcacagggt ccgggtaacc gtccgaccaa tttgggtctc ttgtacgcag 300
 tctttcccta catttcagca aggctgtttc caagaacgaa agccgtgacg caccggcaca 360
 aggaacaac tctacag 377

<210> 10163
 <211> 381
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-001-Q1-E1-D3
 <400> 10163

agtgaagaga aaaaaagcc atacggaact caaaatattt tccggagata ttcattttcc 60
 tgaagaggcg gataatatat tacgtggctg tttgataccg ccagaaagac aagcaaaaga 120
 ttctaaggaa tcaaaagaag gaaaaattgg gtctatgttc aacggaaaaa cattctcaag 180
 agcaaggaaa agtattttgt ttccgttcgc cctacagtgg catatgaaat ggacgaatga 240
 agaaatttat caactttt cccgcagat ctcttcgagg aagaaaataa tctccagatt 300
 cgacttgatc attttatttc tcaagacaat agcaagttaa ctcaaagaat ttatcacaca 360
 aacagtcaat ttgttagaac t 381

<210> 10164
 <211> 375
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-D4

<400> 10164

cgggccgact ctcctagggg ttcaggaata ttgggggtatt tatatagcag ataagcagtt 60
 caagggggcac ccaagatggg cacaaaccac cattgcgcgc cctgctgggt gttgccctcc 120
 tcgacgaatg ggcaggtaca accttggtcg actggatgtc ggtctggaca acaaagtcct 180
 caggaatttt cactatgttt ggacgccgtt tggaattgat ttcttgcgag tgtaaagaca 240
 tgcatactcc accaactggc attgagcagt atgtgaatag gttccgacta aagaatgtta 300
 ttgaatgact ataaaatggg tgtgccacat ccaagaatga tgatattgca tcatggtata 360
 atcaataatt ataca 375

<210> 10165
 <211> 377
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-D7

<400> 10165

attccccggc agacccttca aatgactatc aggcggagga tgggaagatg ggaaagggtg 60
 atctggatcg gtcgcctagt ctgcaggagc aggatgacaa gtctgctcca tatagtcctg 120
 tgtataatgg cgaaggaggc aggggggtcaa tgagccctaa tggcgagcca gtggtggatg 180
 ctaaacctgt ggaagtcttt gtgagcagca agaagaggga ggatgaagag gaaggatatga 240
 tagatgaata cggagaggag ggtatgatag ccgatgatga ccctcgcgca attgcagctg 300
 tgcagaacgg tgatgataag tgacaacgct ttgaacgatg aatttgctat ttcaacaaca 360
 atccatgtta aattttt 377

<210> 10166
 <211> 322
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E1

<400> 10166

ccggggccgac caagccagag accaaaatgg cttgccgctg cacaggttaag cttccgggtca 60
atgggggtatc catccgtctc ttcgtggctg ggtgaagctt tccgcaagat gtcattggcgc 120
ttctccatgc atcgcggcca tccgtgggtt tctccagggt gcccgtaac cgtcctccag 180
ccagtactga attttgaagt ccgtcatgag cttgatgtca tgggggtttc atcatcttga 240
ctctcgcac tcacttatga atcactcaac caaccccgtc taccagcata ttacaataaa 300
ctacatcgtc ccgggcatct gt 322

<210> 10167

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E11

<400> 10167

ggtacctatc aggaattgac ggctcgacga cgaaagaagg gcatataact tgtgtctctt 60
gcttcttaag attattgcct ggtatggtgt aataaattca gagattgcct ttgcagtggc 120
ctgtagctac aaagatgatt atttagaaga acatagatga tgactaacta ttgagaagca 180
taataatgtt tttatttctt cttcatgaca atcaagggtca aacaaatata ttcattgtta 240
tcagaatgaa ataaaattga tggacagtgc cactccattg ataactagag ctagcagtgt 300
gtttcatcta gatgggttaca ttttcttcat agaagaatgt acaatgctag aattagtaga 360
cgcgagacag tcaagatctt catgcactca aactcgttg tactgagttt tttacaata 420
ctcattgtaa tatgtg 436

<210> 10168

<211> 344

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E2

<400> 10168

ggggccgact gtagtatcaa agcattgaac actgcctcct gtctgcgagt atcatgggat 60

gacttgttgt accgtatgta cgaccacgtg tatctatcta tgtaccacaa cacatgtagc 120
 gtgtgtgtgg ttatgtgcac cgcaatagca tatgtctgta acctaccgtg tcgtgtccgt 180
 tgtctgtatc gatatcactt gtgatctaca ctaaggccaa gatctgggca tcgcaccact 240
 tcttgtcagt gtagtcaacc tcattgattca tccgacaacg ttaaccacat tggatcgtga 300
 gactatagga ctcatgggaa gtcttgaccg gagggcctga aaac 344

<210> 10169
 <211> 410
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E3

<400> 10169

cggtctagct atccccgggcc gaccgcatca aacaagatcc agatataatg ttcattgctca 60
 acgctggcac caaataacaa ttatttaggt ctaatattaa tcctgaaggt agatgtagag 120
 gtagcgtgcc gaccgcatc acatcgactt tggaaccatt tcctacgcgc atcgtcacct 180
 cgtccctccc cagttgttgc ttggttcatt tccattgttg agaacttgag attaattgcc 240
 attataggat gtgttcattg agaagttgca tgttgcttaa tctatggatc cagggtccac 300
 tatttttcgt cttgcgagaa attcatgggc tattcttggt tgatgtgttg ttcttcttaa 360
 actttgctct tgtattgatg atggtgtaat attactaaat attattgatg 410

<210> 10170
 <211> 111
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E5

<400> 10170

ttccgggccg accctcacat catcaatgca taactttcca atcacttctc tttttgaaaa 60
 aaccttttta ggcattgaaag gcaagtattt tttttgtatt ttcattcttt t 111

<210> 10171
 <211> 348
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-001-Q1-E1-E8

<400> 10171

acttccatgt gaatgggaaa aagaaaatac aaaaactata aaataaaata aagttaaata 60
ataaaattcc tcatattatg cgtgtttcga tctcattgcc acacaagtct cgtcacagtt 120
gcggaacggt tttaccctt gagttgcacg tagcttcgga tgcatacaat tgcatacgtt 180
ttgcaccttc gtagttgcat ggattccgat aattctagtt gtacgtaagt gaaacaagag 240
tttttgtgac aaataaaaag aaaaggcaac aatttttctg tcaactgacg taggaaaaat 300
agggcatatc aacactacga naatatattc ctggataata catgactg 348

<210> 10172

<211> 343

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-E9

<400> 10172

attcgcgggc cgacccttc tacatgcatg ccaagatctt gggcagcgct ggggaccgac 60
aagtcgagag ttcttacctc gaaggcgta ttctggcaaa ccaagataag gataacttcc 120
tcgtgcctta ctttcccgag taagtctcc cctcaaccgg cccgtaacat atgaattctt 180
acatttcgat cgtttttctt ttaacatacc gtgtgttctg cagtgacaca cgttgcacgc 240
tcctctcct aagcccaaaa tattccactg ggacgtattt cgaccggag cgtcagtcgt 300
acgtagacta cacaaatgtc aagaaggttc ttgatgatgt tct 343

<210> 10173

<211> 257

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-F12

<400> 10173

gtacgtcatg tatgagggcc cgggtgcgaca atccggtggc actgctaacc ctttagagtt 60
tgaccccgga atctagccct ttgactttgc atacaccggg tcccatcac acggtaaact 120

aaaaatctaa aaaaacgtaa taatcgaatt tattaanaac tctgggtattc atcatggaga 180
 ggtccatcgg tcaaactacg tccagcgaaa gtcaaaggga tagacccgac ggttgtctat 240
 gtcagggtta gacggga 257

<210> 10174
 <211> 408
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-F2

<400> 10174

gggccgactg tcctttcaga tattacgagg agaagataat tgccttgGCC ttgtggttct 60
 ttcaaagtta aaactgagca ttgagttatg ggggaggaag tcaaacagtg atgggtattgt 120
 ctcatgggtg ctgcagaaat gtgttcaact ggacgagctc ttttcaagac ccgcgcgcag 180
 gaaaaatgtc atcctgttgg cggggtatga tgaggacaca aatgcgatat ttctgtcttc 240
 ggattctcat gatttcatcc tccagctcga gtcggtgcag ttcagatata ttggaaggag 300
 agaatgcaca cacttcagaa tgtattatcc gtatacaaat ttctacattg cagagaggcc 360
 acgtgagtct aggattaagg aacagtgagt tgcatttctc tcgtggca 408

<210> 10175
 <211> 415
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-F3

<400> 10175

ggtctagcta tcccgggtcg acatttcttt aaattcctta ataggggtcg attgttcacc 60
 ttgatggatt ggcctatctt ggatgctatc tgtgataaat taagacaaaa cttatatatc 120
 agtgggaagtg acattcttta tcaagggtggc cctgttgaca aaatgatctt catagtgaga 180
 ggcaagctag aaagcatcag tgcagatgga agcagggtc cgttacaaga tggagatgta 240
 tgtggagagg aactcctcac atgggtacttg gaacactctt caacaaataa agatggcggg 300
 aaaagtagat ttcatggtat gcgtttgggt gctatacgta ccgtgcgatg cttaacgaat 360
 gttgaagctt ttgtacttcg agcaagtgat cttgaacaag ttactggaca atttg 415

<210> 10176
 <211> 238
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-F5

<400> 10176

gccgacgacg aaacctacta caccggcggg gcctactact acgtgcagcc cgctgaccac 60
 gaccaagagt agttaggacg atcccagcca cgaggcctgc gcctcggtcg atctgtctcc 120
 gagtttgtgc tactcatctt atcggaactt gcgtaactta agtctgtcct cagatattct 180
 tgcttccgcg gactcgtcca cgatcgagca cttctattcg atgccccgag gaccctgg 238

<210> 10177
 <211> 410
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-F9

<400> 10177

gacccttta tcagtctcgg ttctgaggga aacacgagtt gccagatctc ccggatccgc 60
 cccttccccg acccgaatcg cgcgagatg gacgccggcg gcgccgacct gaggagcagc 120
 atcaagaagt ggaagatcat ctaccgggtg tacctcaact ccaagaagac ggtggccgag 180
 ggccgccgca tcgccgccgc caaggcctgc cccgacccca cctgcatcga gatcgccgac 240
 agctgcgctt acctcaagat ccctcgcgcc attgagttgg ataaggcata cccgcgggat 300
 ttcttccagg tggggaaggt gaggggtcag ctcaccaatg atgacggctc ccagtcaacc 360
 ctgcaatcac aacaaagaag cagctaata tcaaatagca gagctgggtcc 410

<210> 10178
 <211> 422
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-G2

<400> 10178

ccccggccga cgagtggagg agtgtcttcc ccaacgaccc cgacaacgac actagcccg 60

acccgcatg cggcacaccg tacgtgacga ggaaggattg gctcgacctc cacttcgacc 120
 gaaagtagtt tagcttagtt taaatttatg ttttatgttc ggttatgcaa aactatctat 180
 gtttaggttt gaatgcatac tacttttcgt tgaaccttct ttgaacttga tcaaattaaa 240
 gtttacaaca ttaagtttag gggatcgacc agaatggcc aaaaattgct ggtatatata 300
 tatataatag agagagagag agagagagag ggagagagta gcactattct gatcccgga 360
 tcagaatagt tatttggatc acgatcagcc taaataggtt ccgacgggca tgttcccgaa 420
 ct 422

<210> 10179
 <211> 409
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-G3

<400> 10179

ccgggtcgac caccactggc aacctgatct acaagcttgg aggcattgac aagcgtgtca 60
 tcgagagggt cgagaaggaa gccgctgaga tgaacaagag gtctttcaag tacgcgtggg 120
 tgcttgacaa gctcaaggcc gagcgtgaga gaggtatcac catcgatatt gctctctgga 180
 agttcgagac caccaagtac tactgcaccg tcattgatgc ccctggtcac cgtgacttca 240
 tcaagaacat gatcaccggt acctcccagg ctgactgtgc tgttctcatc atcgactcca 300
 ccactggtgg ttttgaggct ggtatctcca aggatgggca gacacgtgag cagccctcc 360
 ttgctttcac tcttgagtg aagcagatga tctgctgctg caacaagat 409

<210> 10180
 <211> 378
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-G4

<400> 10180

gttaaggagg tctcttcgta cctgaagaag gtcggctaca accctgacaa ggttcccttc 60
 gtcccatct ctgggtttga gggtgacaac atgattgaga ggtccaccaa ccttgactgg 120
 tacaagggcc caaccctgct tgaggcgctt gaccagatca acgagcccaa gaggccctca 180

gacaagcccc tccgtcttcc cctccaggac gtttacaaga ttggtggcat tggaactgtg 240
cctgttggcc gtgttgagac tgggtgtcatc aagcctggta tggttgtcac ctttgggtccc 300
actggtctga caactgaagt caaatccgtt gagatgcacc atgagtctct cctggaagcg 360
cttctgtgtg acaatgtt 378

<210> 10181
<211> 417
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-001-Q1-E1-G7
<400> 10181

attccccggc agaccctcca actaatcctc aggctccgcg gaggcacatc cgagccatcc 60
ctgcaggctc ttgcccgaac gtacaaccag gagaagatga tctgccgcaa atgctacgcg 120
cgcctgcacc caagggctgt caactgccgc aagaagaagt gtggccacag caaccagctg 180
aggcccaaga agaagatcaa gaactagagt gctactagtc agtttcatgg accggttgaa 240
tccattgctg tgttagcgtt tatgctattg tcgtctcgtt gtcgttgaac cttattttac 300
tttgctttca gctccaatc gttgtggtga tgataattga cagtattggt atatggtagc 360
aaacctataa ttttgccaaa aaacagatgg tcagacaaaa aaaaaagcgg ccgctct 417

<210> 10182
<211> 347
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-001-Q1-E1-G8
<400> 10182

acgcgaaaac gacagaaggg gaaagaaaaa aactcgtacg gagtacgaaa gaataaaata 60
ataaatgtct ttgacatcca attataccac tgaaattttt ttttcatttt tgaatggcag 120
ttccaaaaaa acgtacttct atctcgaaaa agcgtattcg taaaaaatt tggaaaagga 180
agggatattg gacatcgttg aaagcttttt cattagggaa atcactttct acaggtaatt 240
caaaaagttt tttgtacag cataataaat aaaatacact ataataatta gaattagcct 300
aacttaaaaa ccaatttgtt taaatacatc taaaaaaaat aggaagc 347

<210> 10183
 <211> 443
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-H1

<400> 10183

```
ccgggcccgcac cacgaacgta agtcatttcc taccaatcta tccccctagg agcatgcacg   60
tagtacttttg tttcgaatgac taatagaatt ttgcaataag tatgtgagtt ctttatgact  120
aatggttgagt ccatggatta tacgcactct cacctttccg ccattgctag cctctcttgt  180
accgcgcgaac tttttccggt accataaacc caccacatat ccttcctcaa aacagcctca  240
aaacaaccac catacctacc tattatggca tttccatagc cattccgaga tatattgccca  300
tgcaactttc caccgttccg tgtattatga catgcatcat cattgtcata ttgctttgca  360
tgatcatgta gttgacatcg tatttgtggc atagccaccg ttcatcattt gttatacatg  420
tcgctcttcc atcaatgcac atc                                             443
```

<210> 10184
 <211> 387
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-H11

<400> 10184

```
gtacagatag taaatctgga aactgatttg atggcgcgca ttggatcgtg catacctcgt   60
tccagagctc catgagttcc atgaagtaga acttctcctt gaagtagcgc ttgatgatgg  120
cctggacgtg acatttcagc agcacgccat cgtttatcgc agacaggcca acctgacggg  180
acaccaccaa cggcgctatg ttgttactaa tccatctcat ctacagagat gtactttcta  240
ctgcggatcg gcggtgaagt gaaagtactc acggtgggca gcttgtacca gcagaggttg  300
tcgcgcctcg ttaggcggtt gtccgtgatg tcatccatca ccagcgcaga cgctggagc  360
tgcacattca gagacagaag tcgatgt                                         387
```

<210> 10185
 <211> 418
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-H12

<400> 10185

gacagaacga caaaaggggtg aggagcacia gaagaagggtg gagtcgaaga acgccctgga 60
gaactactcg tacaacatgc gcaacaccat caaggatgag aagatcgctt ccaagctgcc 120
ggcggacgac aagaagaaga tcgaggacgc cattgacgct gccatccagt ggctggacac 180
aaaccagctc gctgaggcgg atgagttcga ggacaagatg aaggagctgg aggctctgtg 240
caaccccatc atcgccaaga tgtaccaggg tgctgggtgcc gacatggagg gcggcatgga 300
cgatgacacc ccggctgctt ccggcgggtgc tggccccaag atcgaggaag ttgactaaac 360
gagttgatgt tctgttgacg aggcgggtgaa gcctgcttct tagttattat gtgtgttc 418

<210> 10186

<211> 269

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-H3

<400> 10186

cgggccgccc ggctgcgaaa cgagacagaa gggggaaaga aacaagaggg tggtcagggt 60
ccttgtcgag aacggcgcat tcctgcccc tgacctgaac gaccacaggt tcaaccacc 120
cctccactac ggctctgggc tggagtgggc gtacgagatg aagcgcatgc atgacgagag 180
tgactcgggc ggctaagctt ccttaagctc atccagctac tgaaaagtga tctatccgca 240
ggggattctg ccgatctttg ggttatgac 269

<210> 10187

<211> 291

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-H4

<400> 10187

gccgaccgtg atggccagat aaactatgag gagtttgtca aggtcatgat ggccaaatga 60
gcaccaacc gtgctcccaa gacaggagga gaattgtgca ttgcatatta gtttaagatg 120

caacgcttat ttgatcgatt tccagttaag catcctacct agctgtagct gctaaaacgg 180
atcggacgac gcaattcctg ctatgttctc cagtgtgttt ccagacctct tgtgttttat 240
gtgaacttgt gtcctccctg gtgtatcctg aataaagcac gcacactgca g 291

<210> 10188
<211> 414
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-001-Q1-E1-H5

<400> 10188

gggccgacaa cctcaacaat acacacatcc aggtgaacca agcccaaaag cagaggcgcc 60
gtacataccg tgctcacgga cgcacatc cttacatgtc caaccctgc cacattgagc 120
tgatcttgtc agagaaggaa gagcctgtga agaaggaggc tgataacgtc gtcgcaccaa 180
ggaaagctat ctaagctacc ggaatggatg cattcgtcca acagtcttag ttgtagttct 240
tctcaagtac ctttgttggc agtgtntgtt gcctccttga tgtntttgtt accaacattg 300
agtaaggatt tgttaaggtt gatgctatcc ttgtgattgc gagtggtctt tatatgctaa 360
aacagtttca gatagttgag cattagcaca ccagaaccta tttctcagag atgc 414

<210> 10189
<211> 438
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-001-Q1-E1-H8

<400> 10189

attcccgggc cgacttccac caaagcgata tccatcatct catcgaaaga cgggacacct 60
ttgcctctat caagtggat cagatttcca ggttgctcgg tgagatttta cagtttttcg 120
tagtttagat cgagtctgtt cttcatacct acagtccacg aaaaagccac aaaaaaaat 180
tagggttagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt ttagggtttt 240
gctttgttga atttgcggtt gcacgtcgt gtctagttgc tggctcttaga gtctagttct 300
ttagagtttc gagttctggt cataagttgt cacgccgccc ccgcaccatc atcatcgccc 360
ctgccatcta ccaccaccgc ttatccgcca ccgctccgaa tccgtatcca tataaccacca 420

ccaatccgtg tccatata

438

<210> 10190

<211> 397

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-A1

<400> 10190

cgaattaaag aagtttccgc attcactcca ttgtggaaca ccagaagtta cttactctgc 60
aaattttcca atcccgattc ggacatgcac attacacgca ttcacaccta gggaaaggaa 120
cccttaacag aactattctc tctggtagat gtttcctaca taatctctcc ctaataataa 180
agcacggatt gactttgtcg ggttcaccgt cacaatactc ttcttcccgt gaatttacac 240
tttcagttca natttannac atattcaagg tggactaat tttttgctaa ttcttggttt 300
cgtctgctcc tacgtctatg tcgccccgta cgtcctaaat cgggcttgct cagcctacna 360
acaaagtggg ccgtatgttc nnttgcgctg caccttt 397

<210> 10191

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-A11

<400> 10191

cccgggccgc ccttcccact atgcaaggta ttccaacatg tggaagccgc agtcgtgctt 60
aaacaagaaa agagtcaggt taactcacia gaacatatag aaaaaaatc ataacttcaa 120
ttcagaggtg acaaaaaaga gagggtgagc attggtttgg aggacacatg aggaaaagat 180
gggaaaatac cggtttcctt gcttcatagt cgccacgtac tcaattggaa aatgtctgat 240
ctggaccttt gagttttcat agtgacgggt ccatgtctct ttgaggttgt tgatgaagta 300
ttcaccatgc gtagtaagggt ctgcatcagc ttctgaacgc attgaatcaa gcacctcaaa 360
acgttggttc ttcaagtcaa ggcagatcgc atagtgggtga acacacttgt cgtg 414

<210> 10192

<211> 406
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-A3

<400> 10192

gatatactct tgataactta aagggcatta gtcccacgct atgtcagcac aaaattaata 60
 tggaacatga tgctaaacca gttgttgatc accaacgtcg gttaaaccg aagatgaaag 120
 aggtgctaag aacagaaata ttaaaaacttc taaaagaagg tataatctat cctatagttg 180
 atagtagatg ggtaagtcac gttcattgtg tccctaagaa aggaggtatt actgttggtc 240
 ctaatgataa gaatgaattc attccacaaa gaattgttac aggctataga atggtaattg 300
 attttagaaa attaaataaa gcaactagga aagatcaata cgctttgcct tttattgatc 360
 aaatgcttga aagattatct aagcacacac acttttgctg ccttga 406

<210> 10193
 <211> 455
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-002-Q1-E1-A4

<400> 10193

cgggtccagnt atccccgggtc gactacatca acacatgcag tgcgtttggt cctcggatgt 60
 gggtcactat tgaggggtgat gttgttcact tgcacacatt gtggaagtgt gtttttttag 120
 caaaatgaca aaaaagtaat gcgggttcatt tcaatatata ttgtgggttca cttgccctcg 180
 tctctgcggt cactctcac tcataaaaaa tgttgaaaaa aatacaacaa aaactcgtgt 240
 gagaaaaatt acgtccaaca aaggaaacca tgaagttcac ttgactgtct gatgcggtgc 300
 gactttttta tctaaagcag tgcgttcctt tgtctgatgt ggtacatacg acgattttgg 360
 gtcgccaaaa aatagagtgt ccatatttcg ttaaaatcaa aattgctctt aaaccgtaag 420
 gaagttcgct tcttatcaga tgtagttcac tcgct 455

<210> 10194
 <211> 443
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-002-Q1-E1-A5

<400> 10194

aattgncggg tcgacgtgta tagctatggg attgtgctgt gggagctcat gaccggcatg 60
ctcccccttca caaacatgac agcagttcag gccgcttttg ccgtggtaaa caagaacgcc 120
cgccctgcaa tcccgaaga ttgcctgcct gctctgagcc acatcatgac gcgctgctgg 180
gatgcaaacc ctgaagtccg cccgtcattc aacgaggtcg tcaccatgct cgaggctgcc 240
gagacggacg tcgttagcaa cgtccgtaag gcacggttcc gctgctgcat ctccgagccc 300
atgaccaccg actgagacta gtgccaggat acagagtacc agaaaatgaa aaaatgggaa 360
gaagaacgag gatgggaaag gaggcgacac aatctcgatg tacagaccac actgatacac 420
ctgngcgttg cgtgtgcctg cct 443

<210> 10195

<211> 405

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-A7

<400> 10195

tcactgcccg tgaaagagct taagtaaatt gatgttgat catcagaatc tgtagcctgg 60
ctcatcacag gggctctctt atcagcaaaa tagctactct agatgcgcag atgacgatcc 120
agccgcgggt gcgctttatc tcgtcgggac gaaatagccc tgccctgtcc ctgccgccgc 180
cggtagaggc tattttccat angccaaggc gaacatccgt gtctaattggc gcgaatttag 240
tctggttcca tgagcacttc gttccccgcc atgcaatctt tgttgattcg gaaagatggg 300
agctgtctgt ttagctaatt caatctacca ttgatcatgc taatTTTTGT tatataggaa 360
acaacatgga catgctgccc ttttttccaa tcaaaatact tctgt 405

<210> 10196

<211> 387

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-B1

<400> 10196

agagagattt gagtgttggg gagactatca tttgaagcac aagagcaagg agttcatcat 60
caacacacca tttgctactt cttggagagt ggtgtctcct agattggcta ggtgtcactt 120
gggagcctcc gacaagattg tggggttgaa ccaaggagtt tgtaagggca aggagatcgc 180
ctacttcgtg aagatctacc gctagtgagg caattccttc gtgggcatg gccatgatgg 240
gataggcaag gttgcttatt catggaccct tcgtgggtgg agccctctgt ggactcgcgc 300
aaccgttaac cttcgtgggt tgaagtctcc atcaacgtgg atgtacgata gcaccaccta 360
tcggaaccac gacaaaaaca tccgtgt 387

<210> 10197

<211> 450

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-B2

<400> 10197

ccgggtcgac cgtgccggtg cagcaggtca tgcacgtatt ctacgtcgcc ctgctgtgca 60
ccgaggagca cagcgtgcag cgcccacga tgcgagaggt cgtgcagatc ctgagcgagc 120
tcccaaagcc agctgccaac caagatggag aagaagagct tcctctctcc tgcgaaggac 180
ctgaatccaa ccctcctgcc ccaaccagtt acaccgaggg accagccggc gacgcgaaag 240
atcagcagcc gcagcagcgg cacacaagct cggagtcgtc gcctcctcct gatctcatca 300
gcatctgac atccaagtac ccggaagcat cgccgtccgt cgcaaatatg ttggggcttc 360
ctttgatcgt gcaagcttag gcctgaatct ggggttcgtt ggggtgagaga ctttggttgg 420
gttggtgctgt acatatccaa gctgctttgg 450

<210> 10198

<211> 455

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-B4

<400> 10198

ggtcttncaa tcccgggtcg accaagcacg gagataagag aggacactcc tctctattaa 60
 ttaattagct acctaacaca atatatgaaa cacattaatt aaccatacaa aacccccaaa 120
 tcgccccctt tcagaaaaaa aaagaaaaac cctagcccct gaacagctga cgcgtggatg 180
 cctattggtc ccggttgggtg tcaccaaccg ggaccaaagg gcctcctgcc tgggctcgcc 240
 gcaccggcca catggaggcc catctgtcct gattcgtgta agaaccggga ctaaaggcca 300
 agggcattag taacaacctt ttagtcccgg ttccaaaacc gagacagaag acccttacga 360
 accgggacaa atggcccttt ttctactagt gtgtccattt tgtacacgaa gtgcatccag 420
 tttttctcgt aaccctctca aaatttttagc acatg 455

<210> 10199
 <211> 439
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-002-Q1-E1-B5

<400> 10199

attgnccggt cgacagcagc aattaatgcc gaagggcagg tctgtgagct ggctgctagt 60
 gtggggtccg ggaaggagag ctccccgccg gaattggagc tgtctgcggg gaaactcaat 120
 ccgcaagcac catggttggc aatgaggatt cgcattggat cagcgagtcc atttagaggc 180
 agcgtggtca agttagccgg actgtgggcg cccgcaataa taaaagagat tgggagacca 240
 tgcagacctg ctactgcaa gaaccacggt gtacaggggtc actcgagatt tttttgtac 300
 aagccgggtg aaatgagact gggttcaggg gcttgagtcg gcgttcatgc caaatggta 360
 gacagttggg ttcgaattcc ctccagttgt gcatcacaaa gagtttttag ttatgtcaac 420
 gtgcgtgtgt tattttctgc 439

<210> 10200
 <211> 406
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-002-Q1-E1-B7

<400> 10200

ggcgagtctt ctgcagagca tcatccatcc catccccagg tcataaaccc aagtcggact 60
 cgccttcttc ctccccaaact actcctctcc tctcctccgc gcatcgcacc ggggtcacct 120
 gagatcacac acacaatggt gaaggctgtg gctgtgctta ctggcagtga ggggtgtcaag 180
 ggcaccatct tcttcaccca ggagggagag ggcccgacca ccgtgacggg aagtgtcacc 240
 ggactcaagg aaggggtcca cggcttccat gtgcacgctc ttggcgacac caccaatggc 300
 tgcattgtcaa ctggaccaca cttcaacccc gctgggtcatg tgcattggggc acctgaagat 360
 gaaatccgcc atgctggtga tcttggnaat gtgacagctg gattgg 406

<210> 10201
 <211> 444
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-C1

<400> 10201

cccggtcga cttccaccaa agcgaaatcc accatctcat cgaaagacgg gacacctttg 60
 cctctatcaa gtggtatcag agcggatca gttttcaggt tgctcgggtga gaatttcag 120
 ttttcctaga ttagatttat tttcttacct attgtccaag aaaaagccac aaaaaagagt 180
 tagatctatt catccttggg ccaagccagt ctgagccttt gcaattttct tttcattgct 240
 tgcattagttg aattatcggg tgcattcgtg tgcgagttg ctgggtcttag tgtctagttc 300
 gtttagagtt tcgagttctg ttcacattag tcacgccacc gctgcatcat tatctcttct 360
 gctgtcaaca cccatccatc aatttcacc acatgccacc catcattcat tgcataata 420
 atagttgaga tcgttcacat ctcc 444

<210> 10202
 <211> 437
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-C10

<400> 10202

ggtcagaat tccgggccga ctacgtgaac agattcgacc tcggagcccc tgcgccaccg 60
 aatcgagctc gcgagcaccg catcgacgcc aacgccttcg tcttcaacct ccggttcggc 120

gggttaaccgt cgccattcgg cggcaacggc ggcttcccgg cctccgtcaa gctcgtcttc 180
 ggcatcaaaa tgctggagtc caggagctag agatcccag gatgatttta cgtggagttc 240
 ggcttcgagg agtagttagg aggtcccagg caggaggcct tgccttttcg atcgttgcta 300
 cttttgtgct agccttctta aggcaaactt gtttaactta tgtgtgtaca cagatattgt 360
 cgcttcgcgt gactcgtcta tgatcgagca cttgtattcg agccctcgag gcccctggct 420
 tgtattatga tgcttgt 437

<210> 10203
 <211> 392
 <212> DNA
 <213> *Triticum aestivum*

<223> Clone ID: LIB31-002-Q1-E1-C2

<400> 10203

ctgattggct tccccgattt tctggtggaa agaacacggc ttgaagctgc tgttgccgag 60
 aactggacta tcagagataa gtgcagaatt tgggtgggcga atgatgacgg aggaggaagt 120
 tgggtgggagg gacgtgtgtt ggcaataaga cctaagtcac ctgattttcc tgagagtcca 180
 tgggataaat atgccataca atacaagaat gatggttcag atcatctgca tagcccctgg 240
 gagctccatg atgctgatag cccattgggt ccatggaaac atccacatat tgattccagt 300
 attaggaata aattgttatc agcagtgacc agtttacaga acaagtctcg cagaaaccag 360
 gattgctatg gtgtcctgaa gttggatgct gt 392

<210> 10204
 <211> 247
 <212> DNA
 <213> *Triticum aestivum*

<223> Clone ID: LIB31-002-Q1-E1-C3

<400> 10204

cttctatgtg atggtagttt agatgatcga tatcgacttg taatgtgaag acaaactcgc 60
 tactcacggc ctcgagactt gtaatataat gttctatctt tgttcgggtct tttcaattcg 120
 gagactaata tgatgaattg tattcggaga ctaatatgat gaattgtatt cttctattgt 180
 attcgatgaa tctgttggtg atgtgtgctg tctatTTTTT gtcaaactat acattttgta 240

acctgtg

247

<210> 10205

<211> 458

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-C4

<400> 10205

cggtcaaaca atcccgggtc gacgaagggt ccttacagca cgtacagcat agctcaggtc 60
tcctatgagc tcaacgtctt gggaaccca ggtcctaggc ggatgcgctg tgtaatgcac 120
tccatccctg cctcatcgct cgaggctggt ggcagtgtcc cttgccaacc ggatatcatc 180
ttctcccgtt ccctagacga atctttcagc agcatgccgg tctcgaaatc ttccgtcatg 240
gaccattcca tgcgttttag cagtgccaga ttctccgacg tctcaatagg aggtggcccg 300
gcgatcagag gacaagcctt gagcgacggc gatgatttga aggacacgcc gttgattctc 360
cgcaacaagg ttccaagatg gcatgagcag ctgcagtgtt ggtgcctcaa ctcccggtggc 420
cgggtgactg tggtttctgt caagaacttc cagctcac 458

<210> 10206

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-C8

<400> 10206

attcgcgggc cgacaagacg acagaagggg aatgatgagc atccaagttg ggtataataa 60
aaactatcat agaaagtgca ttgaacacta ggatcaattt gatgcttgat aattgttttg 120
agatataaag gcggtaatgt tagagtcagc ctagtgtgta attatgaaat tgagaaatac 180
ttgtgttgga gttggcaagt cccgtagaat gcacgtatgg taaaagttgt gtgacaaatt 240
tggtgaatga ggtgctcttt cgattgtctt ccttatgagt ggcagtcggg gacgagcgat 300
ggtcttttcc taccaaccta tcctctagg ggcagtcgta gtagtacttt gcttcgaggg 360
ctaagtagac ttttgcaata agtatatgag ttctttatga ctaatgtgag tccatggata 420
taagcacact cacccttcca ct 442

<210> 10207
 <211> 375
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-C9

<400> 10207

tggaagatat cgagatctct cggtcgttat gttgacaatg aaagtatacc gctcaaaatg 60
 ttattcatat ctatttcaaa accgagctct ggcacctcta caaatccctg cttccctctg 120
 cgaaagtgcc atctatttac atttatgtgt agagtcacat tcctcttatt aaaacgcacc 180
 atttgagag caccgctgta atttgtaccc attagtgtta ttttacacag tgtaacacat 240
 gagagtatct cttttaccat gaattacaat ttctagtcag tccttgatct ttaaagggtgc 300
 tctgcattta tgttttgagg tctcagaaag gtctagtgag ataccatctt gctatatcat 360
 atcatgatta ttttg 375

<210> 10208
 <211> 417
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D1

<400> 10208

cgggtcgacc tccaccaaag agatatccat catctcatcg aaagacggga cacctccgcc 60
 tatatcaagt ggtatcagat ttctagggtg ctcggtgaga ttttacagtt tttcgtagtt 120
 tagatcgagt ctgtttctca tacctacagt ccacgaaaaa gccacaaaaa aattagggtt 180
 agttcatcat atccgaacca atctgagcct ttgcataatc tttttagggt tttgctttgt 240
 tgaatttgcg gttgcatcgt cgtgtctagt tgctggtctt agagtccagt ccttttagagt 300
 ttcgagttct ggtcaaaagt tgtcacgccg gcgccgcaac atcatcatcg cccctggcat 360
 ctaacaccaa cgcttaaccg ccaacgctcc gaatccgtat ccatatacca ccaccga 417

<210> 10209
 <211> 367
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D2

<400> 10209

gggtcgacaa atgggggaca taatataccg ctggtgtgcg gaaggagaaa aagaccagct 60
cggaagcca ggcgcgagag gttcaagaac tcaaggcaca ggtggcgcg attccggaga 120
ttgtccagga gtgagtggaa caacgactcg gagcgacgat caccgccctt gtgcctacct 180
tgatctcggt gttgagtgcg tggattgcgg gcggccaaca ggggccgccc ccgattccta 240
gcttcacagc tagcaactcg cataatgcga tggcggggcc attggtgcct ccggcagagg 300
cggcactggt gtctccgacg ccggcacggg agcttaatgc acccgggtgt acgccggccg 360
gggactc 367

<210> 10210

<211> 446

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-D3

<400> 10210

tcccggtcg acgattgtgt gcattgccat cagtgatgct catgatagt actgctccgg 60
cgtgcggcgg ctgcttcgct tcgtgaccgg acgacctgtc cagacgtatg aggctggttt 120
ggggcaccgg gctgtagatg tgctaagtta aaaaaatcca ccctttgtca aaaatgcacg 180
catctgaagc gggcatccat ggatcggtgc tactaattag catgattagg tcatagtac 240
aatactggag gttgttaaac attaaatcac atttgaatgg ttagatgtct acatcttgcc 300
gacaatcagg gaaggtagct cccttatggg ggccgacggt ctttttctct ttttggtgag 360
cccgacaaag tanctgtatt cgtaattttt ttaacaacac aatgagaact tcagttattg 420
ttggttgata actttaagat gtgaaa 446

<210> 10211

<211> 453

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-D4

<400> 10211

cggtccagnn tatccgggtc gacccatta ggaagtcaga agaagagatc gtcactatca 60
aagctcaaat ggacaagtac ttggccgtgg tgaatgaaaa agaagctgaa aataccgagc 120
tggttgagaa gatgaatcat ctcgaggctc agctagttga agccaacaag gccagtgagg 180
aagccaaggg cgagacccgt caactgaagg acaactatt agacaaagag aacgaattac 240
agaacatata agaggagaat gaggacttgc aggcaaagga atcagctgct tcggagaaga 300
taaaagagct ctcttatcta gtgccgaatg gaacgacaaa tgggtggcaac aaggaagaag 360
ataacgagaa tgggtggcggg gtggatgacg aaccggctgt ggtggttgcc aagatgtggg 420
agaacagcaa ggtcaccgac tacgactcat cca 453

<210> 10212

<211> 431

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-D5

<400> 10212

attcgccggg cgacgacggg ggatatgatg acctcagctc cccgaagacc aaggagatta 60
tatgctcaga aataaggcca ccacatgaaa gaaaattttc ggccgacggg ggaggtgacg 120
attcagaatc gtgttattct caccacacac cggtggctcc acccgccaag ccttcggtg 180
tgagcgggaag ctgcaagaaa gaagccgccc ccaaggccgt atcactagcc gttgtcccaa 240
gcaagcagaa ggggaacccc aacttgctca agaggatcct gacaggaacg aagaaggatg 300
ccataatcaa accaaagggtg gtcttgagtg cttagctgac agagaccaag ggtaactcta 360
tccatgataa attccatttc catgtgtaaa ttaaacctgt atcaattacc tggtgagctg 420
tggttcttgt c 431

<210> 10213

<211> 450

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-D7

<400> 10213

attcgccggt cgacgttcac aagaaaccac taagggaatc acaacatata tataatcaaa 60
 atatcaaaca catcaaattc acatgattac ttctcccggtg acctcaagaa caaaagtaag 120
 tactcacaaa tgatattcat gctgaagatg agatgggtat taaatagcat aatggatctg 180
 aacatataat cttccaccaa ataaaccata tagtaatcaa ctacaagatg taatcaacac 240
 tactagtcac ccacaggtac caatctgagg ttctggtaca aagattgaac acaggcacta 300
 nggtttgaga ggagttggtg ctattgaaga tgttgatgaa gattggcctc ccaaagatga 360
 gagggttggt cgtgatgacg atggcttcaa tttccccctt cgggaggga gttcccccg 420
 cggaatcgct ccgccggagg gcaaaagtgc 450

<210> 10214
 <211> 387
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-002-Q1-E1-E12

<400> 10214

atcttctca aaacggccac catacctacc tatcatggca tttccatagc cattccgaga 60
 tatattgcca tgcaacttcc atcatcatca tatacatgac ttgagcattt attttcatat 120
 tgctttgcat gatcgtaaga tagctagcat gatgttttca tggcttgtcc gttttttgat 180
 gtaattgcta tgctagatca ttgcacatcc cggtaaccg ccggaggcat tcatatagag 240
 tcatatcttt gttctagtat caagttgtaa tattgagttg taagtaaata aaagtgtgat 300
 gatcatcatt attagagcat ttccccaaga aaaaaaagg agaggccana gaagcctaaa 360
 taaaaaaggg gggccaaaga agccccgc 387

<210> 10215
 <211> 441
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-E2

<400> 10215

cggtcgacc gcttggtaaa cccgagcaaa gatatgaccg tgcctgagtt gtgcatcgtg 60

gaggagatca atgctgaatt caaggagtct gttcttgctc gggttggtct gaagggtaca 120
atcattttgc ggacgttacc accaaagaag gcagcagga gggagacaga gttctcatte 180
cggcttgagg gtgcttctgg aatgaagagg gccgccttgc agagtaccgt gttgagcagc 240
ctcgagaacg gcctgttcca tgtgaagaca ccatccaagg aggagcctat ccccatcatg 300
aaatacagct tcttgcccaa gcactcacct ctccccctga gggttcccct tggtaagcgc 360
cacagtggca cactgctccc gctgatgaaa cacaatgcgt cgaagccaaa gttgccgcaa 420
ccactgagca atgttacatt c 441

<210> 10216
<211> 440
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-002-Q1-E1-F2
<400> 10216

cgggtcgaca tcgagccaga tgcacatgtc aagcaggcga tgaatgagat caatgcagct 60
gcaaggatga ggggtggctgc aaacgagaag gcggaggctg agaagattgt ccagatcaag 120
cgtgccgagg gtgaagcaga ggccaagtac ctgtctggcc tcggtatcgc ccgccagcgc 180
caggccattg tggatggcct gagggacagc gtcctgggct tctcagtcaa tgtgcctggc 240
accactgcaa aggatgtgat ggacatgggtg ctgatcacc cagtactttga tactatgaaa 300
gaggtcggcg cgtcctccaa gtcctcggcg gtgttcaccc cccatggccc tggcgcggtg 360
cgcgacatcg ccacgcagat ccgcgacgat cttcttcagg gccagtctgc ctctgacaac 420
taagcagttt gcttcgccta 440

<210> 10217
<211> 456
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-002-Q1-E1-F3
<400> 10217

acggtcttcn tatccgggtc gaccgcggag aagaagaggc gatggcgtcc ggggtggggca 60
tcaacgggaa caaggggcgg tgctacgact tctggctgga cttcagctcg tgcatgagcc 120

gctgccgccca gccctccgac tgcggcctcc tccgcgagga ctacctcgag tgcctccacc 180
 actccaagga gttccaacgc aggaacagga tctacaagga ggagcaacgt cagataagag 240
 ctgctgctcg caaggccaag gaggaagccg aaggagctcc tgctgttgca gctcaccact 300
 agcateccctt ttcaattttt ttcttatgct tttgtttgtt gcaagcgctt ccatgttcgg 360
 ctatgagcaa ggcaataatt acctaaacat tgcaccctcc cacctccatg acttgttcta 420
 aaagcatgag tttgataaac taccttgggc atcaag 456

<210> 10218
 <211> 435
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-F5

<400> 10218

acaaggtgat tgaaccggat tttcaaccaa agcaggggggt taagatagtt acagatgaga 60
 aggccactag tctgtcctct gcatctgttg acgacgctgc tgtcattgaa gagcttattg 120
 ccaagttaga agaagtttcc aaaacactgc catcaggggtt ccacatgaac ccaatacagt 180
 ttgagaagga tgatgacaca aacttccata tggatgtgat agctggtttt gccaacatga 240
 gggcaaggaa ctacagcatt cctgaagtgg acaagctcaa ggccagggtt atagccagca 300
 ggatcatccc agctatcgcc acctccaccg cgatggccac tggcctcgtc tgccttgagc 360
 tttacaaagc ccttgtctggt ggacacaatg ttgaagacta ccgcaacacg tttgcaaacc 420
 tcgctatccc tctct 435

<210> 10219
 <211> 446
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-G1

<400> 10219

cccggtcga cctgtctggt ttaatttaac aactgccata ttttgacatg ctacaatagt 60
 gcattttcat gtgctgaaac ccagctttc taacgattca cttgtctgca gatataattgt 120
 atgactcgtg gtcaccagca atgacggtca gttccgtgtg catcagcatc ttgtccatgt 180

tgtcaagttc accagctaag gtcacccagc tccctctaca ttatctacaa tctaactgaa 240
 eggatcatcta actgtacata ttgtttgcat gcaggaacgc ccatccgata acgatcgcta 300
 cgtcaggaac tgccgcaacg ggaggtctcc gaaggagacg aggtggtggt ttcattgatga 360
 caaagtgtga tgggtccag ctggtttctt cttccggcat cagcagctct tatacatcat 420
 catcctgcct accgtagtat ggcgtg 446

<210> 10220
 <211> 422
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-G2

<400> 10220

gggtcgaccg gatttgaag atagaaaatg gggaaaagaa agtctccact acttttttac 60
 gggaagcaac ataattgaaa atacattatc atgtgtccaa tggcaccac acgtatcctc 120
 atagttttat tttcttgagt tggctgacc gacatgtgga ccaacgaatg ggcatgtacg 180
 ccacataagt aggagcacia tccgtgacgg tccggatggt gtatattaaa aaaatgctag 240
 gcccgactaa gcccgttgg tcaatctgag acggattctg tgacggtagc cgcacgtccg 300
 tcatcaaggg cccgctgttt tcgggcccaa ccacggctta caaatcagtg acggtagtcg 360
 tgacaggtca tggttttccc gtcatttca tgacagattc taggaatgtc agcacgaatc 420
 cg 442

<210> 10221
 <211> 442
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-G3

<400> 10221

cggtcgacc tatgtcgtga acaaaggtaa ggttcccgga gtctacgatg actgggagga 60
 gtgtcggaga caggttcacc gattcagcgg taacagttac aaagggtaca ccaactagggc 120
 tgaggccgaa tctagatacg cccgctatct agcgggagag gggaggagc gttggaggaa 180
 ccggatgaag acgattttca ttgtgatgat gctcatcgtg atgaccgcag ctctcttcta 240

tgtgatggta gtttagatga tcgatatcga cttgtaatgc aaagacaaac tcgctactcg 300
 cggctctcgag acttgtaata taatgttcta tctttgttcg gtcttttttaa ttcagagact 360
 aatatgatga attgtattcg gagactaata tgatgaattg tattcaaaga ctaatcttct 420
 attgtatttg atgaatctat tg 442

<210> 10222
 <211> 440
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-G4

<400> 10222

cgggtcgact cccccctcct tccaacagag aggagaaaag ggaaagaggg ggagagggag 60
 aaggaaaggg ggtctgcgcc cccaccctcct tgtccaattc ggactgccat gggggggcgc 120
 cacctcttgt ggctgtctc ctctccacta tggcccatga ggcccattaa ctttcccggg 180
 gggtttcggt aacctcccag tactccgaaa aatcccggaa cctcttcgga actattccgg 240
 tgtccgtaca taaccttcca atatatcaat ctttacctct cgaccatttc gagactcctc 300
 gtcattgtctg tgatttcctc cgggactcca aacaaacttc ggtcaccaa acacataact 360
 cataatacaa atcgatcatc aacgttaagc gttcggaccc tacgggttcg agaactatgt 420
 agacatgacc gagacacatc 440

<210> 10223
 <211> 304
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-H1

<400> 10223

gggtcgacag gtttgataa taatcaagaa gcagctggca gtccctgatg ggacccttgt 60
 cacagcggag tcaaaatttt ctgaacttgg tgctgactca ctggatacgg ttgagattgt 120
 gatgggcctc gaggaagagt tcaacatcac cgttgatgaa acaagcgcgc aggacattgc 180
 aaccgtgcag gatgcagcgg accttatcga gaagcttgtg acagagaaga ccgcgtaagt 240
 tctcgggttc attggacacc tttagaaggc aaatgtgtcg tctggatcgg ttggcttctg 300

304

| | |
|-------|-------------------|
| <210> | 10226 |
| <211> | 448 |
| <212> | DNA |
| <213> | Triticum aestivum |

<223> Clone ID: LIB31-002-Q1-E1-H3

<400> 10226

ccgggtcgac tccgaggaat acactgtgga ggagcgcaac ctctctctg ttgcatacaa 60
gaatgtgatt ggagcccgcc gtgcctcatg gcgcattc tctccattg aacagaagga 120
ggagagccgt ggcaacgagg accgggtcac actcatcaag gaataccgtg gcaagatcga 180
aactgagctt agcaagatct gtgatggcat cctcaagctg ctcgaaaccc accttgtccc 240
gtcttccact gcccctgagt ccaaggtctt ttatcttaag atgaagggtg actactacag 300
gtatcttgcc gaattcaaga gtgggcctga gaggaaggat gctgctgaga ataccatggt 360
ggcatacaag gctgctcagg atattgcttt ggctgagctg gctccaactc atccgattag 420
gcttgggctg gcactaaact tctcgggtg 448

<210> 10227

<211> 364

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-002-Q1-E1-H5

<400> 10227

gacagaagaa cgacgatgcc gagccgccgg gacatgatct gagtttgtcc ggatggactg 60
cctcttgcta gatatgtacg tacgtatggt accattaatt aaccaagcat gtggtgattg 120
cattatTTTT tggcccctga ttggatctca tagtacttat gatacataac caactcaacc 180
cccctccttg ctctcgattg tattatatgt gcgagcatcg ttctatgaca gttcttgata 240
tactcacttg ttgaaccgca caagtgcagg ctgatgggtg tctcctctga ctaacacccc 300
cagctgacgc tcatggcagt cttaatgata acccactagc taattgcaag tgttgctttg 360
tttt 364

<210> 10228

<211> 330

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-002-Q1-E1-H9

<400> 10228

ctacatgaca catcaccata tttgggccta aggggaatgca ttgtggagta gttattagat 60
gatgtgttgc gagagtggca gaagcttaaa ccctagttaa tgcgctattc cgtaagggac 120
cgattggatc caaaagttaa atgctatggt tagaatttat tcttaatact tttctcatag 180
ttgtagtgc ttgcgagggg gttaatcata agtaggaggt tcgttcaatt aagaacagca 240
cctaagcacc ggtccacca catatcanat tatcanagta gcgaacacga atcgaatcaa 300
catgatgaaa gtgactagat gaaattcccg 330

<210> 10229

<211> 281

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-A1

<400> 10229

gaggtggctt tgattgtgaa ggaagtgacc gatgggcaga gcacctgggc agacatcatg 60
tggagatacc cagcacatac cgccttggcc accgatgagg aacaagcttc agaaacctga 120
agggtagagt cgaagagtct tccatgggtt gaagcgatgt ttggcttcct gagtttccga 180
tgtgtgtcct gttaacagaa atactaatag agcgcttgcc ctgtagaccg acgcctgttt 240
tcccctcacg tatgggtttc agccgttcgc tgtcaatatt t 281

<210> 10230

<211> 366

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-A10

<400> 10230

gggtccacgt cggtatccct acaaagactg ggggtgtccc ttgttttagtg ccagctatcc 60
gcaatgaacg tctaaccaag gacttcaaag gccctaggaa ggtgcctaata tacacggcag 120
acttacaacc cgcagcctgg atcgagagtt atgagatggc tatggaactg tgtgacgccc 180
ggataattag gctacagtaa tcccacgtta acgatgccac gtcaccccggt ttactgttga 240
taaactctcg atagttcaga accgaaacaa attcaaaatt taaataaaaag caaataatag 300

aagtttataaa atattaaaac taaaatgttc ggagtgcgcc aaatagtcca tattaaatat 360
 tgggtga 366

<210> 10231
 <211> 450
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-003-Q1-E1-A12
 <400> 10231

gggtccacct cctccggcct acacctgcga ctgttcatcc atgggctcct gttcatccag 60
 cctccaccgg ctactgttca accagccctc caccggctac tgttcaacca accctccacg 120
 gggtcctgtt catccaaccc cacaccaaga attgttcatc caaaccccg t caacaatgct 180
 cactgttcat ccaggaagg aggcaacggt gtttgatcgg cttcagttag cagcagtagc 240
 gaaggaatca cactcgggtt tagttaacag caagggatcg atcgatcgct cgggttcagt 300
 aatgcgtatc ctgcagtga atcgctcggg ttcagttaga gcccaacgcc tcacacacac 360
 ccccgtagt acgagagaaa cgcacatcgc tcggccctg accagccacc gtaaccggga 420
 actccccggt attttcctcg ccctcgcttc 450

<210> 10232
 <211> 436
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-003-Q1-E1-A3
 <400> 10232

ggggccacgt cctctgcttc atcttctcc agggctcgta gatgtttttc tggaccaatg 60
 aggtctccca ttagatacag agagggggccg ctggactacg agccattcac accatgtgat 120
 tgccgtgaga agccaaaagc agccatgtgg atctcatgga ggcacgagaa tccaggtaga 180
 agatacaaga catgttaccg ctgcaggagg ggaggttgtg agttctacga gtggcacgac 240
 aatccgatcg cagatccttt cctcaaacag ctgggttatc atcttaggga ccaagtgtgg 300
 ttatttgaga ggaggaacgc tgctctgcaa gatgctacga ggacagcaga aactgaagcg 360
 gcaaattctat ctgcacaact ttcagaagct atggagtcgg gcatggacag ccgtgcaaaa 420

attatggtgg ctcttg

436

<210> 10233

<211> 386

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-A4

<400> 10233

ggggccactc tcttgacctg atcaacgtgg atttcactgg gacatgatgc ccgccgctg 60
cacacaagtt tgctatttct gcatggacta ccaatgctgt caacgttgtg cttgcctcag 120
acaacgctac tgacaccaca ctacgaaaac tgcacgttaa ttctggtttc tttgcccaca 180
ccgcatgcct acaaattgcg atcaagcaac cgtctgtggg tcataagaga tgactacctt 240
tggtatccac ggcttgtcta ctactgtatc catgtctcaa tccacatggc aactcttttc 300
aattctgctt aaacttacat tctctctctt acgtcctaac gttatttcat ttttttcctt 360
tctgttcttt tccaactgat ttgcca 386

<210> 10234

<211> 339

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-A5

<400> 10234

gtcgacatcg atcatgatac gcaggtaag caggctatga ctgagatcaa tgcagctgca 60
aagatgatgg tggctgcaag cgagaatgca gaggctgata agattgtcca gatcaagcgt 120
gccgacggtt aagcagaggc caagtacctg tctggcctca gtatcgctcg ctacgcctac 180
gccattgtgg atggcttgac ggacagcgtc ctgagcttct cagtcaatgt gcttggttagc 240
actgcacacg acgtgatgga catggtgctg atcacgcact accttgctac taataaagac 300
attggcgcggt cctccaagtc ctctgtcgtg cttatcccc 339

<210> 10235

<211> 354

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B1

<400> 10235

tttatactat gcaacagtca ttttttttagt ataaaaaata acggagggag tataaaacaa 60
ggggtacgac tatccttggt gcaatgctat gtctggctgg ctatatgcat gcatgcaatg 120
tttcggcatg tcatgtatgg gccatggatg ggtcacactt acatcatcgt tgaactttct 180
agtttgatgg atattagtag gcagatgaga aatgaaagaa cacatacatt tgtccaagtc 240
gttaatgatt gtgtggacct agcataatag actacaaatg tatttgtacc attggtattg 300
cccattatag gagggaaact tctcaaacaa ctttacacaa gttgcacctt ttgt 354

<210> 10236

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B12

<400> 10236

gggtcgacgc cgacggcgac agcaacgtca acttcgagga attcaagaag atgatgggag 60
gcggagggag gagctaggct ggtaagggcc ggccatgagc aaacaatgct gcatctgcat 120
gcctcggtga ggggtttggt cctccatggt gcttaattta attttaatta atctcaaagt 180
gaaaggctta ggctccccgt aatgcgaata ctaatgatga tgcgggtgaa gtgattaatt 240
atgtaaactt aatcttctag tagtagtagt actactaatg atgatgggtg tactaagaaa 300
tttggctctgg ggttggttgc aatgaattag aactcgtttg aaaccctttg ttttctggt 360
tggcactctt tgtttttctg tttgaaactc atgcaaaatc aataactata 410

<210> 10237

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B4

<400> 10237

aggtgagatt gtgacacagc tgaacctgtc agatgatgat gttgtccgtt tgctccattc 60
tctctcttgc gcgaaatata cgattcttag caaagaacca gctggtggaa ctatttlogcc 120

caatgattct tttgagttca attcacaatt tactgactgg atgagaagga tcaagatacc 180
 octagctcct gttgatgaga agaaaaaggt tggtgaggac gttgacaagg accggaagta 240
 tgcaattgat gcatcaattg tgcgtatcat gaagagtcgc aaagttatgg cccatacaca 300
 gctagttgcg gaatgtgtgg agcagctcag ccgcatgttc aagcctgact tcagaacagt 360
 caagaatatg attgaagatc tcatcacgat ggattacctg ga 402

<210> 10238
 <211> 431
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B5

<400> 10238

tcgacctatc agaggctatg tgattttaag ctagegccga tatttattaa cacacagagg 60
 cggcacaatt gagacagtgt tcacaaaatt tagaacgttt cactgaaaat tgtgaacatc 120
 ttttaaatac cgaatacttt ttagattccg tgaacaattt tctagaacag aaacattttt 180
 cgaaattcca aaacagtatt tggaacaaaa atcattttgt gaaatccatg aactttttgt 240
 aatacgcgaa ctttttttaa atccatgact tttttaatat gcaaacatta tttgaatctg 300
 tgaacaatat ttaaaacgag aacaattttt tgaaaacttg aataacctat aaaaaaactg 360
 taacgcattt taaaatgaga aaatagtttg aaataccgaa aaaaaatcac acaagcaaat 420
 tttgaaacta t 431

<210> 10239
 <211> 440
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B7

<400> 10239

attcgccggt cgactacagt caagatgatg tcttttttcc tggacaaaag aatcatggtg 60
 cgtagatata ttgccttta ccttgatgta tgtttgagc tcgctctgtg tcatgctacc 120
 cagtaaccac tgctcgtcta gtatgtaagc cgtcattctt tgttccagtc ctgcactgat 180
 agtctgatac cactatcttg ggctctaaac attacaggat gctccgacga tcatcagaat 240

tcccttgaga gccatacttg acatcgtgct agcagagctg ggaatcccag aggccgaata 300
 ccgtcgcgag atatgcgacg ataacaagat ctgcgtcacc gtgcttttcg acgcctctac 360
 aatcaaagga gccccgccc atatgtcgat atccggaaca tattccacgg acgatgaagt 420
 ggcagaggac acagctgctc 440

<210> 10240
 <211> 344
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-003-Q1-E1-C10
 <400> 10240

cttctacatg agtgccaaga ttttgggcaa cgctggggac cggcaagtcg cgagttcata 60
 cctcgaaggc gtcattctag tgaaccccag ataaggataa cttcctcgtg ccttgctttc 120
 ccgagtaagt catccctca ccggcctgta acatatgatt tcttagactt cgatcgttcc 180
 tttgtttcta acattctgtg tttgtgcag tgacacacat tgcacactca tcctcttaag 240
 cccgaactat tccatggcca cgtatttcca ctcagaccgt caatctaaga aagactacac 300
 aaatatcaag aaatttcttg atgatgttct cccccggtat gcca 344

<210> 10241
 <211> 206
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-003-Q1-E1-C11
 <400> 10241

gggtcgacct tctagataga ttggatatcg tacggacaca gatatatggc cctatcgaga 60
 tgatccagat attagcaatt agagcacaag tggaggacat tgaaattgat gaggacagtc 120
 ttgcatttct aggacaggtt gggcagcaga catctttgag acatgctatt catctgatgt 180
 cacctgctat tgtagttgcg aaggct 206

<210> 10242
 <211> 330
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C12

<400> 10242

gggtccagcc cgtacatcga aaaggcatat gatacagtct ataaataaat tagtacctac 60
atgattttga atataaggggt aaccttaaaa ccaatgacaa tcaataatgt gggataaaga 120
tggttaaagca agaatggggc gcaaccagac gtgacacgag cattttgttt tcccatggcc 180
tgagacaatg gggcatttat gtctacgaac aactccatgc tcaggacaga cacaacatgg 240
ggccaccatt agtggttaata atcccaaaag tgaatgagtc atggatgacg tttttacttg 300
aacaaaccat aagtcgcaa ccacaaagaa 330

<210> 10243

<211> 242

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C8

<400> 10243

ttcgccggtc cacaagcccg acgccaacta ggatatggat gaacaattga gctttcttgg 60
atgttgacaa agctctttca gaatctcaga aatactgctg tgtactttcc ttgtatcaat 120
gggaaacagg ggcttctgtt ttgttttttg gtttcccaac gtcagattaa taatatatag 180
ataacctaaa tcatacaaaa tgtggttccc atgcaaatta tttatccttt cctaccttga 240
tt 242

<210> 10244

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C9

<400> 10244

gggtccactc ttcacttggga cctcaggctc aggggcggtg ctatgatcaa ggttaagact 60
ctcactggga aggagatcga aatcgacatt gagcccaccg acacgattga taggatcaag 120
gagcgtgttg aggagaaaga aggcattcct cctgtgcagc aaaggctgat ttatgctggt 180
aagcagcttg cagatgacaa gactgccaaag gactacaaca tcgaagggtg ctcggtcctc 240

catcttgtcc ttgctctgag ggggtggttac tagttaagct gtaatggaaa cgcttgcgtc 300
 ctgagagaag tgaccattgg tggcatggaa cctgtgttgc aaagagataa taacaaacta 360
 gctttgctta gtgggagggg ctgtcttcca atgtagccgc ctatatgatt tgacagaact 420
 actcgcaagt taaaaaaagg gtttgctt 448

<210> 10245
 <211> 440
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-003-Q1-E1-D10
 <400> 10245

gggtccactt ggccatggtt cttccgagca cgcataag tggaagacga acaattgggc 60
 ggcacggtcc ccttgttcaa gtcctgtggt ggaaggaagt aatttgcaac agctacgttg 120
 ttgtcaagga cagggatatc acctgtaaga gtctgaatg caaactccag gcatgggtct 180
 gaccagatac ttcgaaacag cgacgacagg gaatatccgg gcatagcatc agctgttcca 240
 acaagtccgt tcggttgccg cgagcatcc acattctggc atccaacgtc tgttaacgag 300
 catgcagcag atgctcctag tatctgttca ggagctgaag gatacttgtc ttcagcattt 360
 ccagaagtac ttggggcatg tgcaacatct ttattctgaa tttacggaga ggaaattgcc 420
 tttgacttag gaatttttga 440

<210> 10246
 <211> 422
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-003-Q1-E1-D12
 <400> 10246

ggtcgagact ggcgcgggg gcaacaacgc cgccaagctg cacgagctcg acgagatgaa 60
 gcgcgctctc aaggagatgg aggaggaggc cgctgccctc cgcgagggtgc aggccaaggt 120
 cgccaaggag atgcaaggcg gagatcctaa cgcgaccaca tctgaagcaa aagaagagat 180
 ggattctcgt tctgtttttg ttggaaatgt tgactatgca tgcaactccag aagaagtgca 240
 gcagcatttt aattcctgcg gaaccgtcaa ccgagtgaact atcctgactg acaagtttgg 300

gcagcctaaa ggttttgctt atgttgaatt tgttgaagca gaagctatcc aggaagctgt 360
 caagctgagt gagtcaagagc ttcatgggtcg gcaaatcaag gtaccaccga accgaactaa 420
 cg 422

<210> 10247
 <211> 446
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-D3

<400> 10247

ggtccgagat taccgggtcc acccctgggg gctacacaac attgctcaaa tccacatgat 60
 tatatttaca aagtacctgc tcattattgc ataatgaccg gacccttggg ggctacacta 120
 gttgaagttt tgagtataag acaattacaa gtcccagggt gctgcaagca tgacaaccg 180
 gcacttggga gctacataat atggagtatt cagggttttac taagtgactg ggatgaacaa 240
 catgggtttc ttcttaagtg gcagtattta tgttgaagca agtcttaagc catcactttg 300
 ttctactcaa gacttggggg ctacaggtat tataatatta tcgaagaaat attttttcag 360
 actctgtttt gagcaaacca gattgaaccg gtgtctgcaa caatcatgcc ccggaattat 420
 cagtttttat aaccgaaaa tggtgg 446

<210> 10248
 <211> 440
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-D4

<400> 10248

ggtccgagat agcgggtcga gacgagagtt agcgatctac agctgggtcg gtggactggt 60
 ggtgacacgg gcggggccctc tactttatct gccgaatcca atcgatcatg ggcgggccctc 120
 ttcgttcaca gtctttcttt cctttcgaat ccaattgttc caatctgacc aaatagcaat 180
 tcattgaaat cattcgggtc acctcttttt taagcacttg accaagccta tttctataga 240
 aaaggacagg aatctattga ctttgagtct gtctcctact acgaaattgg aactgaatac 300
 aggatggcaa tagtgagaaa aaaaatcccc tcgtactacg tcattattta ttcgattttc 360

cctggtaagt gctccagatg cagttgcttt agttgacgta ctgagtggga actaattata 420
 tgtgtccttg aataccagag 440

<210> 10249
 <211> 392
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-D6

<400> 10249

agttgaccac tgcaggatgc acggatgcgg agaaggtgtg ttttgccgca catcagctag 60
 atggacccgc agcatcatgg tgggagaatt tcacaaccac ttatcctatc gacactgtca 120
 catgggacca gtttcagcag gctttccgta ctgcccatgt tccagcagga gctatggcca 180
 tgaagaatcg tgagtttcac aacttacacc aatgaggacg tacagttggc cagtatgtgg 240
 atgtcttttag taagctagca cgttatgcc cagatgacgt tgctacagat gcagctaagc 300
 aggagaagtt tctggaagga ctgaatgatg agctgagcat gcagttgatg gtagcaacct 360
 tcaacaacta ccaggagttg gtaaggatct ct 392

<210> 10250
 <211> 420
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-D9

<400> 10250

ggccggtccg atattacggg tccagaccac tggccaactt gtctatgagc ttggaggcat 60
 tgacaggcgt gtgatcgaga gggtcgaaga tgaatcagct gagatgaaga aatgtggcaa 120
 gtacgcatgg gtgcttgaca agctgaagtc tgagcgtgag aggggtatcg ccattgatat 180
 tgccctgcgg aaagttcgag accaccaagt acaacttcag tgccttgac atcactgggt 240
 acctcctatg gcgactgtgc ggtgctcatc attgattcct ccactgggtgg ttttgaggct 300
 ggtatttcca aggggtggcct gactctggag catgtcctcc ttgccttaac taccggagtg 360
 gaggacatga tctgctgctg caacaaagta aatgttttga cacatcatgc ttgtttttac 420

<210> 10251

<211> 279
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-E10

<400> 10251

cggggtcgagg cgagggatag atgatgatga caggcgaatg aacagtcagg tgggtgcact 60
 ttatccatcc tgccaccata ttacgttacg tatacatact ctatattgac tgctgagttc 120
 agaatcgagc ttgtcaaagt tgacagtaca gtatgagatt ttgactaagc tgaagtcctg 180
 cggggggcaag tggcaatctt gcatgtcctc aggatgtctc cactattgca tatgggtcca 240
 ggccccagtc aatgggtaca tccacatatg catgcatga 279

<210> 10252
 <211> 401
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-E11

<400> 10252

cggggtccacc aggacaccct catcgacctc atgctcgctg ccaattacct cgacatgcag 60
 agcctgctcg acctgacgtg caagacgggtg gcggaccaga tcaggggcag gaccctcgag 120
 gagatccgca agaagttcaa catccgcaac gactacacca aggatgagga gcaggaggtc 180
 cgcagggaga actcgtgggc attcaattag aagccgtcta gctatttgct tgtccatttg 240
 atcatcactg cgtaggctat ccatcggtcg atccacggct atgatgggcc tggttacctg 300
 atcatatgcy ctttctcact cttataaagc aatcaacggg gccgaaatgc ctacctggat 360
 gtacaaaagg ggccgccaga cggcgaaaag aaaagcggcc c 401

<210> 10253
 <211> 444
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-E12

<400> 10253

cggggtccagc ctgctaccca atgcatgtcg ttaaaaagca ttaattgtaa atttttttac 60

gcctagactt agatgaataa ggatctctat ttaatagaga tatttatatt tgtccatacc 120
 tttttgtaat gagtttataa tcttaaaata aaatatgcta ctgagttggt taccttgaat 180
 gtggtgcgca ccgtgagtaa tggaatacat agttccagtt ccaaaaatgg gaatccacat 240
 acttatccca tatttttttg atagaattct tttaactata ctcttttaac aagtagacga 300
 gatataattaa cgatctatct aaatgagcga tgtatacttc tgaaaatata ttcataatctt 360
 gcacgtaatt ttcacataat atctacaatc taagataatt ataacataat tattgtcaac 420
 aaaaagttaa gtacaaagta tttc 444

<210> 10254
 <211> 385
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-E2

<400> 10254

cggtccgaaa taccgggtcg agttccacca aagcgataaa catcatctca tcgaaagacg 60
 ggacaccttt gcctctatca agtgggatca gatttccagg ttgctcgggtg agattttaca 120
 gtttttcgta gtttagatcg agtctgttct tcatacctac agtccacgaa aaagccacaa 180
 aaaaaattag ggtagttca tcatatccga accaatctga gcctttgcat aatcttttta 240
 gggtttttgc tttgttgaat ttgcggttgc atcgtcgtgt caagttgctg gtcttagagt 300
 ctagtctttt agagtttcga gttctgggcc taagttgtca cgccgccgcc gcaccatcat 360
 catcggttg ccatctacca acatt 385

<210> 10255
 <211> 426
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-003-Q1-E1-E4

<400> 10255

ggtcggaat aacgggtcga cctgaaggca gacaaaaaaa agatcaaggc tgccgtgaaa 60
 aagatgtacg acatccaggc caagaagggt aacaccctga tcaggcctga tggcaagaag 120
 aaggcgtacg tgaagctgac accagactat gatgctcttg acgtggccaa caagatcggc 180

atcatataag tcagagggac ggtcctgcag taggcgcttg tgcgtgggt tcttatgtta 240
 ttggagtttt gtagttgtta cttagcanag gggctcagt gctccattgc ctaccatata 300
 gccgcgact ttcataaatt tgatgcaatc gaagtgaatt gtgttgatgc taatttgaag 360
 ctttgcgttt ggtcttaccg tattgggttg tatctttacc atccttcgac ttaccttatt 420
 tcctgt 426

<210> 10256
 <211> 451
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-F10

<400> 10256

gggtccacgt tgcattggta tgtgtcagta gggttttcaa gaaaatatgt tcttatgtca 60
 cctccataag tgatatggag aagctagagg agaaaacgct gagacgttgt gcactcttga 120
 ggccatattt ctgtcatcat tttttgatct tatggttcat cttttcaacc caagtgaggc 180
 taggagggcc aataaagtac aacaacatgt acccgataga aagatcatcc atgaacctat 240
 tttcttggtg tcctatggtt tcttccttat ctcaaaaata attcaatata tgttatgtat 300
 atattatata ggaatagtat gaggctaaag gggtttgttc gtaccaaag ccattcctgag 360
 ggggtcaattg cagagggcta tcactttgac gaggccatta cattctgctc gcattattta 420
 caaggatgtg agactagatt taacaaaaat g 451

<210> 10257
 <211> 421
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-F12

<400> 10257

gggtccacga tgtatatgta gtatgacgag gtggccttcc attgccctag aggcgctggg 60
 tcttggtcgt ctctgcatt ggcgtccata ccgtcgatgt cttcagagtc gaagtcgagc 120
 atgccagtta aatcatcgac agtggctacg aagtgaagtgg tgggtgggct ttgaatttct 180
 ttgtcgtccg catcccaacc ttgctgacca tagtccggcc agggctctcc taataaggag 240

agagacttta gtgaattcag aatgtcgccg aagggcgagt gttgaaagat gtctgcggcg 300
gcgaactcca tgatcggcgc ccaattgggt tcaatcggca ggggcgtgga aggttcggag 360
tccggaaagg agtccggcac cttggagtcg cgagcttcgc aaaagacaag actggtgttc 420
g 421

<210> 10258
<211> 179
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-003-Q1-E1-F2
<400> 10258

ggtcgagtc atccgtcaga tgcaaagcac ccagtagatg agaggcagga agatacatgg 60
gagagtgggt tgccccagac gagtgtgcaa tgccctcttca tccggacaata actttttgct 120
aaggaagcag gtcagctcaa agccatttat tggatgtgtc cagatggtgg gctcacatt 179

<210> 10259
<211> 417
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-003-Q1-E1-F3
<400> 10259

cgggtccgaga taacgggtcg acatcgagcc agatgcgcat gtcaagcagg cgatgaatga 60
gatcaatgca gctgcaagga tgaggggtggc tgcaaacgag aaggcggagg ctgagaagat 120
tgtccagatc aagcgtgccg aggggtgaagc agaggccaag tacctgtctg gcctcggtat 180
cgccccgccag cgccaggcca ttgtggatgg cctgagggac agcgtcctgg gcttctcagt 240
caatgtgcct ggcaccactg caaaggatgt gatggacatg gtgctgatca cccagtactt 300
cgatactatg aaagagattg gcgcgtcctc caagtcctcg gcggtgttca tccccatgg 360
ccctggtgcg gtgcgcgaca tcgccacgca gattcgtgac ggtcttcttc aaagcca 417

<210> 10260
<211> 318
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-F9

<400> 10260

gggtccacac tgaggaagga gggctggctg tcaaccccaa cttctttggt gatttcggga 60
ccgagcctga aggtccctcc ttggcccatg agatgagata tcctgggtgga gactgcacct 120
ctgacatatg gatctaggag gaaggggtgta ggacacaggc agctggagat ccatgggtgtt 180
gagctcactg taattaaaat ggtctcttcc ccgcctgcgg tgttgatgt gatgtggtat 240
caattggaat aagttcctga tagaacctct gacattggct tcatgggagc tttgggcccg 300
aataagagtt gcctctga 318

<210> 10261

<211> 188

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G12

<400> 10261

gtcactgatt catcaaagt ggcctcctcc tgtgacgaga ttcgcctgga tcgatctgga 60
gccccatgca cgcactggt ggcagatcca tcatagatcg ccgtacgcgc acgctaagga 120
caccaccagg cacgggtcta tcgttgagga tgatgggtccc tgtctagtga atgattattt 180
cctccagg 188

<210> 10262

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G3

<400> 10262

gggtccgaaat taacgggtcc actacctgat ccgcaccaa tgggtgcctt gcctcgagtt 60
cagcaaggtt gggttcatct tccgtgagca caacgcatcc cctgggtact acgatggccg 120
gtactggaca atgtggaagc tgcctatgtt cgggtgcacc gacgccacac aggtgatcaa 180
cgaggtggaa gaggtcaaga aggagtaccc tgacgcgtac gtccgcatca tcgggttcga 240
caacatgcgc caggtgcagt gcgtcagctg catcgccttc aagccaccgg gctgcgagga 300

gtccggcaag gcctaaacag ctcaatcacc acgggccaca tataaagtgc cattgcggtt 360
 ttgtcaactc tgacattgct ttgggttttc cttctccatt tatctttctt gtttgttctt 420
 aagaatatgt gtatgtccat gttcatgta 449

<210> 10263
 <211> 398
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-003-Q1-E1-H10
 <400> 10263

gggtccacaa cgccgaggaa gagaggaagg cgatcatgtg ggaagagacg aacgggctgg 60
 tgagcgagta cggaagatc catcttggaac agcactcgtc ctgggaaccc gcggttcctc 120
 cccttggaac catggtcaag ggaagcctca gtccgttatg acgatctggc gaagtaattt 180
 cgctgatatt caagctggac gacaatcccc cttggaaccc cccgtttctc ctcttgaagt 240
 caagggccaa caagaacctc tagccctttg ttaaagctgg tgaccgcacc atcgaggat 300
 tgctatcctt ggatggtaat tgtagtgaa ttgtaggaat tcttttcttt gccggagcca 360
 taaggaggtg gtgttcgttc aatgggggct aaaatttt 398

<210> 10264
 <211> 243
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-003-Q1-E1-H11
 <400> 10264

atgaatagca tactctagcc tgccgaggaa gtgacagata aagtacactc tctcgatgga 60
 ttttgggtgtg gggataacat gccctttatt acggagcctg tgggggactt cagcagtcag 120
 gtacctcgcc ttccagagct tcgtgataac ctctcagtg accgaggagg ctgcccacct 180
 accttgggag atggatcccg acataactag aggggtccgt aacaatggaa gaaatcta 240
 cct 243

<210> 10265
 <211> 429

<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-H4

<400> 10265

gggtcgactt ctcgtggttg ccgatgcgca gaactgcatg ggaggtttga ggagatcacg 60
ttccaagctg ccgatgaaga gcaatctggt ttgcatgact cagggggcag ctctgatgat 120
ggatgcgcgc aaaaggagca acatgtcaaa gacaatgaac ccatatgcct gaatgggttt 180
ccaaagatgg gtagaagagg tctttctgat cggctttgct tcagttcttt ccaggagcgg 240
tcgtgcccaa ccgagaatta tgagagcgat gccgatcatc agcctaaggg gttcgacata 300
aagcatgaag tgaagatggc caagtacaaa tcacgggaaa tgggacacct gaagagagct 360
attcatccat ctctggactt cgacaacacc acgaatggag caagcatgac gaagcctaca 420
ctgagcaag 429

<210> 10266
<211> 244
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-A2

<400> 10266

gcagcaaggc tgctggactt gctggaaact gtggtatacg ttatggtgcc agtttgcgta 60
tgcagatcat gaggatggaa gtgtctcagc actccaagta cttcagttag ttctgcggga 120
agtttgctgt ggtcaggaaa gcagttggaa tttggggatg caaggactgt gggaagggtga 180
aggctgtcgg tgcttacacc atgaacactg ccagtagagt cacctgtcag gagcaccatc 240
cgtc 244

<210> 10267
<211> 432
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-A6

<400> 10267

ttcgcgggtc cactacatca cactacacca ttgtttgggc ctagaggaag gcattgggaa 60

gtaataagta gatgatgggt tgctagagt atagaagctt aaaccctagt ttatgcgttg 120
 cttcgtaagg ggctgatttg gatccatatg ttccacgcta tggtaggtt taccttaata 180
 cttcttttgt acttgccgat gcttgcaata ggagttaatc ataagtggga tgcttgcca 240
 agtaagtaca tgtagcgacc agacctcaaa tggctctgtc tgctgtgcac cagtgtcatc 300
 cctggatcag taatgctgac acgcacacta caaatggagg atttataaca gattagcaat 360
 cacacacttt ttacatcgaa taactccgaa gagtttaagt atgataaata tggcttaagg 420
 ccatctaata ac 432

<210> 10268
 <211> 443
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-A7

<400> 10268

ggtcgacagc cataagaggg agctagtcaa attgttttgc atatgtcaca gtagaatgga 60
 ggatatcatt ccaaaagatt ctctgtgag gctttagca ttcaatctgg gctaccttcc 120
 aggaggagat aaacaaataa tcacagtacc tgagacaact gagctggcac tacaagctgc 180
 cagcagaatt gttggctcag ggggactcat aagtgtcctt gtctacattg ggcactctgg 240
 tggaagggat gaactcgata ttgttgaatc atttgcgta agcttgctg ctgatacatg 300
 ggtgagctgc aagtttgaaa tgattaacag gccaatgtc ccagtactag ttctctaca 360
 caaaagatga tcacaatccc actgaagctc cacaagtttg ggactcgcta ttctggattt 420
 ccggttgatg aatgaaattg cgc 443

<210> 10269
 <211> 340
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-B3

<400> 10269

aggccaatc tagacacat ctccgatggg gttcaccacc tccattgggtg cctctccgat 60
 gatgtgtgag tagttctttg tagatcttcg ggtccgtagt tagtagctag atggctttct 120

ctctctcact gaattctcaa tacgatggtc tcttggagat ccatatgata taactctttt 180
 gtgggtgtctt tgttgggata tgatgaactt tgagtttatg atcagtcata tctttttata 240
 tccatgaaag ttatttgagt ttctttgata tcttatatgc atgatctctt atagcctcgt 300
 atttcttctc cgatatattg gttttgtgtg gccaaactga 340

<210> 10270
 <211> 416
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-004-Q1-E1-B4
 <400> 10270

gtagatgcac tctcctttct actcgtagtt ggtttctcca tagatagata ttggtgacac 60
 gtaggaaaat tttgaatttc tgctacgttc cccaacagtc gtctcccgac cagttaggtc 120
 ggaaagagga ccccatgac ggttcgcgaa tgggccactt caggcagccc atgacgtata 180
 caaggaagat tccacaagac ttagcgcgca agacgacgac tcttctaaac ctaggcctc 240
 tgatgcatta tataaaccga gactacgcta gtcaatacga catcttatat tcattacaac 300
 aatatcgtgg tagatatcgg tactatacta tccccaatat atgaatataa tctcgaactt 360
 gggtaaaatc atgtgtccat gttgctatcg ctacaagacg cctaacttat gaccct 416

<210> 10271
 <211> 453
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-004-Q1-E1-B6
 <400> 10271

ttcgcgggtc gacaccttta atcgaatttt tcagtacaac attgctgtgg ctgctaccac 60
 ggacaagata cttggtgcga ggaatccga gatccccatc cgcgagctga gggtcagggt 120
 ctgtttgagg catgatgagt gtctctccat cagccaagct gttgcccga ccatggcaac 180
 ccacaagctc gatgtcgtg agtttgcgt cctcacggag aagactagtt ggagatgcac 240
 tcaacatgat ctctctcct ttgccaaagc gttcaatact tggtttggtg attgtccagt 300
 tgtgtttgct ggtctcacgc acctgtggct gcggaatttg aggtttgggt aactggacat 360

ccacaacatc ctcaacacct gcaagcgctt ggaatctctg cgtctcacc attgtgaacc 420
 aggggtccgc tccgtgcttc aagtacagca tgc 453

<210> 10272
 <211> 368
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-B7

<400> 10272

ggtccacgtg gaggtggcag atcagaggag ccggcgaaaa ggtcggccag ggaacgggaa 60
 tagcagctcc accgtctcgt cctcccaaatt tctcagagcg gagctggagt aatgccgtct 120
 gcgtcggcgt cggcgtcgag ccgtcaaggg tgcgggatgt gggatgtctg cccatccgca 180
 actactggaa gaacacgctg gcagcgagcg tctccaagag caagggagga gatgacgttg 240
 cagctcaagg gggccgcact acctgaaggt gagcatggat ggcgcccatt tttcccatc 300
 aaatttgtag aaattcgttg cagagcaagg gacttttgtg ttttaatcag tgggtgaatt 360
 ttttgcaa 368

<210> 10273
 <211> 336
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-C1

<400> 10273

ggggcatcac gtctgcgaca agtataccga agatgattct gcatctacta ctattactcc 60
 acacattgac cgctatccat catgcatcta cagtattaag ttcataagaa tagagtaacg 120
 cattaggcaa gatgacatga tgtacaggga taaactcaat caatatgata taaaccccat 180
 ctttttatcc tcgatggaaa caatacaata cgtgccttac taccgctgtt gtcacaagta 240
 aaggacaccg caagattgaa cccaaagcta agcacttctc ccattttacaa gaaagatcaa 300
 tctagtaagc caaaccaaac tgataattcg aagaga 336

<210> 10274
 <211> 183

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-004-Q1-E1-C10

 <400> 10274

 gcggttccca aacagaatgg taaagtttat actccccctt ccaccaataa gcatcaatcc 60
 atggcttgct caaaacacag agtgacctca actaacaaga gtcccaaggg gatTTTTgtt 120
 tgcaatattt tgatttgatt tgcataaagc atgggactgg gcatcccggt gaacaaccac 180
 ttt 183

<210> 10275
 <211> 312
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-004-Q1-E1-C3

 <400> 10275

 caaggcggcc gtgaaaaaga tgtacgacat ccaagccaag aaggttaaca ccctgatcag 60
 gcctgatggc aagaagaagg cgtacgtgaa gctgacacca gactatgatg ctcttgacgt 120
 ggccaacagg atcggcattca tataagtcag agggacgggc ctgcagtagg cgcattgtgtc 180
 gtggtttcgt aagtgagtgg agttttgtac ttgttactta gcaaaggggc tcaatggctc 240
 cattgcctac catatcgccg cgcaacttca tgaatttgat gcaatcgaaa tgacctgtgt 300
 tgatacacgt gg 312

<210> 10276
 <211> 365
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-004-Q1-E1-C4

 <400> 10276

 ggggtccagt cgaccaaagc aataaccatc atctcatcga aagacgggac acctttgcct 60
 ctatcaagtg gcatcagatt tccaggttgc tcggtgagat ttacagtat ttcgtagttt 120
 agatcgagtc tgttcttcag acctacagtc cagcaaaaag ccacaaggaa aagtttaggg 180
 ttagttcatc atatccgaag caatctgagc ctttgcataa gctttttagg gttttgcttt 240

gttgaagttg cggttgcatc gtcgtgtcta gttgctgggc ttagagtcta gtctttttaga 300
gtttcgagtt ctggtcataa gttgtcatgc cgccgccgca ccatcatcat cggccctgcc 360
atcta 365

<210> 10277
<211> 414
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-C7

<400> 10277

ttcccgggtc cacctatcat cactgactat ggtgttgcca cgacaatttg ttcaagtga 60
accttcagtt tgctaaagca tctgcaaag agaacaagaa atcgcttggg ttagacttca 120
accaggtcc atctgtcct cgggatgatg gcacccatga tgctgaacc aatattatcg 180
ggcccttcta caaccttgaa ggtctcatat cacacattgt tgttcagggg gcagccgtgg 240
agcactctgc agatgacact gattctgatg aagcgcctgc tcctcccaag ccatagaaac 300
agaagaaaca aaggcttcaa aaccctctc tgcacaaaaa gcttcgcatg ttaagcctct 360
agctactgca cctcctggaa gcagtgtgca gtccgaagat ctctcatgca tctc 414

<210> 10278
<211> 390
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-D3

<400> 10278

ggtcagacc ctacctctac atctatcttc gggattagtt ttagacctga ataattgtta 60
tttggtgcca gcgttaagca tgaacattat atctggatct tgtttgatgc aagacggtta 120
ttcatttaaa tcagagaata atggttggtc tatttatatg agtaatatat tttatggtca 180
tgcacccttg aagagtggtc tatttttatt gaatctcgat agtagtgata cacatattca 240
taatgttgaa gccaaaagat gcagagttga taatgatagt gcaacttatt tgtggcactg 300
cggtttgggt catattagtc taaagcgcat gaagaaactc cataccgatg gacttctgga 360
atcacttgag tatgaaccac ttggtacttg 390

<210> 10279
<211> 332
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-D4

<400> 10279

cgccatcaag cttacgccgc agaatttgct gcccccatgc cacctccggg gcctggcttg 60
catactcatg accagcagtc gaggaagaca aggcgggtgct ggtcgccgga gcttcaccgg 120
cactttgttg cgccttgca ccaactcggg ggccctcaag gtacttgagc cataacttag 180
ccaaatgcta gctgtatgtg ctactctagt tggcacattc gaaaaatatt ggagtcctta 240
caaaaatgtt ccacgatgat tgcagttgcc actccagagc aagtcacgga gattatgaca 300
cttgatggcc tcaccaacta tgaagtgaaa ag 332

<210> 10280
<211> 286
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-D6

<400> 10280

gggtccacag acaatttgga aggataggat cgatgctcac agcagattga tgaggcacta 60
ttttgtggag aatctgacat accccgagtc gtacttttgt cgccggttta ggatgagcac 120
tgagttgttc aggcgcatta cagagaaact aacgagccat gaccggtttt ttcagcaaag 180
gaggaatgcc gccagagagc tcgggcataa cacctttcag aaggtgacag ccgctttgcy 240
tatgttgga tacggtatcc cggctgatct agttgatgat cacttg 286

<210> 10281
<211> 393
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-E1

<400> 10281

gggtccagac tgcattagaa acgtatcctt cactgccacc acagtcgata taaattagct 60

gtccggcaga ctttccaatg aatccggaga aacacggatt aacactttct acaactggta 120
gcgggatgat tctccatctt agcccttctg catcaactat tgccaacca aactgaccta 180
ccagcaagtg gtgtatagct aacaaaatta tgtcaaggag taaggatata accgtaggta 240
attactagta agagatagta gaacagttca atgggtatgc aaggttttag taggtgatat 300
gcatcacatt attcagcggg acacacattg acaatagaag ttacatgcta agagcagtat 360
ataaccaatc gatgcagcaa aagtagttca acc 393

<210> 10282
<211> 301
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-E11

<400> 10282

cgcgccggac ctcggaacgc actaaagtga gtcgtactac ttctttgttg atttcgggac 60
cgagcctgaa ggtccctcct tggcccatga gatgagatat cctggtggag actgcacctc 120
tgacatatgg atctaggagg aagggtgtac gacacaggca gctggagatc catggtgttg 180
agctcactgt aattaaatg gtctcgtccc cgctgcggt gttggctgtg atgtggtatc 240
aagtgggcaa acttcctgac agaacctctg acattggctt catgggatct ttgggcccta 300
a 301

<210> 10283
<211> 421
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-E2

<400> 10283

cgggtcgagg tccatcaata ttggttgtag atgtgagttg ttgctgccat ggaggcagat 60
acttctgggc ctcttctctc tccgacactg tgtgcacgtg ctcatcgcct ttctagccag 120
aaagattgaa cacgtttatt tctagaggct ataaagtttt tcttcatccg aattgatcta 180
tggcattgga ggacacgtgg tttcccaatc cctgcaaaaa acgatatcta ataacctcct 240
ccttgacgat ctgccatgga gcttttaaaa aaggactact atgctgctaa taacaaaaat 300

taaattgcat taggattcat gaactactta ttttcatctt atatatgctg accttctcct 360
tcttttagtg aaaaatcatg catgtgccct tcgtgttata ttactgttac ctttcataca 420
c 421

<210> 10284
<211> 434
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-004-Q1-E1-E4

<400> 10284

gggtccagtc tcggtgagaa tggacattca cttggaaaga tgggtggaca gattaatgga 60
cacttgaatt atggatttca tggggttgga gctttcaatc cacattccct tcctgacttt 120
cgcaacggcc aaagtaatgg tatttcttgc aacttaggca caatatacc cattggagtt 180
aagagcaact ctagaactgc tgaaggaatg gagagcagac atctttacaa agttggttct 240
gctaaccttg gtggtcattc ttctggatcat accgaagcac ccgggttttc aagaactgga 300
agctgcccc ttcatggcca ccaagtagcg tggaataatt canataactc gcataccat 360
acctcctctc gcatgctatg gacgaactca ggatcattta tcaataatat accatctcga 420
cctcccatgc aagc 434

<210> 10285
<211> 423
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-E6

<400> 10285

ttcccgggtc caaaaagtg gagccaaaca ggcccagacc aacaacatga tacacaaaaa 60
caaacaatga caagcgaggc gggagataga gcgcttacac gaaaattatg aaactaaatc 120
aaaagaatga caaacttaga cgagacatcg tttaaaatag ttgtggattt aaaaatacaa 180
tatgaaatta taaaaatcaa ggattttacg accaaaaaag aaacaaaata cagaagttta 240
aaacccaaga gaaaaattta gaaaaaacag acaagaaaaa aaacagaata agtgagtata 300

gagagtggcg aaccaggaaa tacttgaaaa aaatgctcgc ctctgacact tccaattctt 360
 tcccgaagca taaagacaaa atatgcctac tccccaaaca tacatagaca ataaagacca 420
 gcc 423

<210> 10286
 <211> 412
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-E7

<400> 10286

ggtccacgga gaagaaacag ttgaacacga tgcgggagat caaggtgcag aagctcgtcc 60
 tcaacatctc cgtcggcgag agcggcgatc gcctcactcg agctgccaaag gtgttgagac 120
 agctgagcgg gcagtcgcca gttttctcca aggcgaggta cactgtcagg tctttcggca 180
 ttcgtcgtaa tgagaagatt gcctgctatg tgacgatcag gggtgagaag gcaatgcagc 240
 ttctcgagag tgggctgaag gtgaaggagt acgagctctt gaggaggaac ttcagtgaca 300
 ctggttgctt tgggtttggt attcatgagc acattgatct tggcatgaag tatgacccat 360
 caaccggcat ctatggtatg gacttcctcg tggttctgga acgagctgga ta 412

<210> 10287
 <211> 227
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F1

<400> 10287

gaatggcaga aaacagcaat gtaaaatgac agactacgtg gtgacgtcat ttacgccttc 60
 agttccatca tgtgcttgct gctgggcctc gcattacaaa atcgcttgac aatatcatac 120
 agttggattt gttccttcgt agccctgact tcaggctcgt aatcctccgc ggagggtcgg 180
 ttaaactaag ctctgctgcc ctcaaagaac caaggggtgg cactcct 227

<210> 10288
 <211> 434
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F2

<400> 10288

ttgaataaac ggtcgatttc cgattaatct ctattcctcg gctgactgag acgctaacaa 60
taagcgatat cctcaatatt gacgtaaata aataaccgca cccaaaaaca ggaacgggtg 120
tggcctatgg cgtcgcccca ttacttgccg cccgcgggca gcatatagga ttggaccgta 180
ttaaaggcat tttctatttg acgcttcagg cgcccattac tgtgtatgtt gcaaacaggc 240
acacaccctc ctctgcgctg cgctggccca tttagcctac ccaaacttgc gactaagtcc 300
atcaaaccgg agatctcctt gtattcgata aatggcacta accaccaga cccaatgcc 360
tattgtgac acttctcctt tttcttcctt ttcttccttt tttccttatt tttttacttt 420
tactttacat tttc 434

<210> 10289

<211> 450

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F3

<400> 10289

ggggccaggc acgtcgattc acattgaata accttggttc tgtccaaaca tagctgtatg 60
aaaatgatat agcatgaaag aatcatgtct actaagtaaa aagagaaaga actaaaacgt 120
aaagcggatc atgtatagaa agtacgaaga aggtgaatgg taaaaaagag caaggcaaaa 180
tgagagatta tgtggtgagg tcatttacgc tttcagttcc ttcattgtgct tgctgctggc 240
cctcgcatta caaaatcgct tgacaatata atacagttgg atttgttcct tcgtggccct 300
gacttcaggc tcgtagtctt ccgcgggggg tgggtgaact accctctgct gcctcacaga 360
accaggggtg gactcctaa tggatcctc agataccgta tctgcaggca cattgaaact 420
tgattgccc tgacctcgtg aggacctcct 450

<210> 10290

<211> 273

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F4

<400> 10290

attgctgagg caagagatca gctccacaag atgctgaatg aggatgagtt ggcgaatgct 60
gtattgcttg tttttgctaa caagcaagat cttcccaatg ccatgaatgc tgctgaaata 120
acagataagc ttggtccaaa acccctgcgt tagccacact ggtatattca aagtgcttgc 180
cccaaaagtg gggaagggtcc gtatgaaggg ttggactggc tccccaacaa tatacccagc 240
aagtcctgaa agcttccaat ggattggcaa agc 273

<210> 10291

<211> 358

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F5

<400> 10291

cgcaactcac taaagtgagt cgtagtaccg tcgagacaca gctgtacgca aatgatatac 60
catgaaagaa tcatgtccac taactacaac ggagaaagaa ctacaaccta aagcggatca 120
tgtatagaaa gtacgaagaa ggtgaatggt aaaaaagagc aatgcaaaat gagagattat 180
gtggtgaggt catttacgct ttcagttcct tcatgtgctt gccgctggcc ctgcattac 240
aaaatcgctt gacaatatca tacagttgga gttgttcctt cgtggccctg acttcaggct 300
cgtactcttc cgccgggggt cggtgaaaca cactctgctg cctcacagaa acaagggt 358

<210> 10292

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F6

<400> 10292

cgggtccacag tctaagagaa aacaggagta tagctgctca taccgtaatt ctctgatgc 60
ggaagtagag tattagaggt atactacata atacatgaat tgtattgtat tgtactgttg 120
ctgtacaaga cgtgttacta cactatccct gtggtctagt caacatggaa tcttcagggga 180
aagtagtaaa gctgagtaca atgaagagaa atgtgtagcc agcttgtgtc gcatttttagt 240
gctccaaaat tgtattcttg tcttgcatgg tgctatatag caatcatttt ggaacttctt 300

gtcaatttct tccggacctt aagaatcatt cacatattat actgcagtat actggtaata 360
gctttttaca ctttaacaac tctaactt 388

<210> 10293
<211> 440
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F7

<400> 10293

ggtccactgc atccagagac ttcaaccttc tgacgctcaa caccatacag acagccatag 60
ccagggcata caaaactcat ttcgagcaac ttggctaata caaagcttat gcgttatccg 120
aatcaccttc aaagcgtacg acaatagtgc aagtaactat ctgtcattcg ctatccagta 180
gattaggtgt cacgtcattg aactatcac tgccttcattg tcattgctgc tagaccgcac 240
attacatcat ccgtgatata tcaacagttt gctttattca catcgctcga ccttacgtca 300
cgcacgtatt cttccgcatg aggtcgatga actaccctct gctgcctcac agaaccagcg 360
gtggcactcc tagatgtatc ctcagatacc gtttctgcaa gcacattgaa acttgattgc 420
ccctgacctc cttaggacct 440

<210> 10294
<211> 212
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-G10

<400> 10294

ccccggtcga cctatcaaag gcaactcatg tctaataagt ggatgtcatc tgtcccaccg 60
gtgacgcagc acctgtttcc tgcacgatt gagcagttta caagtgccaa atccccactg 120
gctccggttg ttcacaggtt atctgatcca atagccgccg cagcaccctc ccggtctacg 180
ctaattgtga acgcccgtg tacgtcatcc tg 212

<210> 10295
<211> 322
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-G4

<400> 10295

ccgaaaagaa aaagattaag gccgctgtca agaaaatgta cgacattcag gccaacaagg 60
ttaacaccct catcatgcct gatggcaaga agaaggcgta cgtgaagctg acaccagact 120
acgatgctct tgatgtggcc aacaagatcg gcatcatata agtcagaggg agggtcctgc 180
agtaggcgct tgtgtcgtgg cttcttgtgt tattggaatt ttgtacttgt tacttaccaa 240
aggggctcac tggctccatt gcctaccata tcgctgcaca ctttcatgaa tttgatgcaa 300
tcgaagtgcac ctggtgttga gc 322

<210> 10296

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-G5

<400> 10296

cgggccaccg tccaaacaga gtgtgatagg ggcttttgat cttgaccact tcaaagttca 60
atgtttctgc cctatagtca tattcattgc caaaagccac ttccaaggct atcttaccaa 120
ctggatatgc tgacttacca ggcaccaccc catgaaatac tgtagaggac ggcttaagat 180
ctttgtcggc caaattcata cggtgaaaag tatcatacta aaggatattg atactactgc 240
ctccgtccat aagcacctta ctgaacttgc agccccagc ctgaggggct acgtaccacc 300
aaagccagct gccccggatt gccaacctgg ggccggtgat cctcacgggt ccatacaatt 360
ggctgctctg accatcgagg gtatcgaggc actgccg 397

<210> 10297

<211> 249

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-G6

<400> 10297

acggctacag cccaatctac acgccacagg aatggcttga atctgggtgac cgctacgccg 60
gcggaacgac cgggcttctt atctgggccg tcaccctcgc cggcctcctc ggcgggcgcg 120

tcctctctgt ctacaacacc agcgctctcg ccggctaata gagcatctac gttttacaac 180
 agggccgggt ccttgcttgc atgcacgtct ctgtaatcca catagctacc tctgtgaat 240
 gtatgcaat 249

<210> 10298
 <211> 144
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-004-Q1-E1-H11
 <400> 10298

cgccgggtcca cgatatccac tcaaatgggt cgtctcccggt gctgatcgcg agctagccgc 60
 aattaagggtc tccccgcggg ctttacatga cctatgactg tgcgcatcta cccattatag 120
 caactatgtg cagcgtgaat ctag 144

<210> 10299
 <211> 347
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-004-Q1-E1-H4
 <400> 10299

ggtccacgag atgacgaaac gcaccaagaa ggctggtatt gtcggcaa atggtacccg 60
 ttatggtgcc agtttgcgta agcagatcaa gaagatggag gtgtctcagc actccaagta 120
 cttctgtgag ttctgtggga agtttgctgt gaagaggaaa gcagttggaa tttggggatg 180
 caaggactgt gggaagggtga acgctggcgg tgcttacact atgaacactg ccagtgcggt 240
 cactgtcagg agcactatcc gtcgtttgag ggagcagact gaagcataag ttgctactag 300
 tgttttgtcc tagtgaatca tctgggattt cgagtttag acgatac 347

<210> 10300
 <211> 426
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-004-Q1-E1-H6
 <400> 10300

ccgggtcgac gagaggatgg aaaacaggca cgaagatgac cttcctagaa ggaacaatct 60
gattttttcg tcttatttgc agcgtaaact atgtatagta atcattagac catctttgaa 120
gatctgacga acagaagcag aatgggttctt tctatactgt tcgaccccc tctccccccc 180
cccaccttgc gttctctcgc agggagtggc tagcgcgcaa cactgccatg ctctctgtct 240
gctccgtcat cacaggggtgg gacggcgacc tcgccttctt gttcattgtt ctgtcggtaa 300
cgacgttctt tgtccaggat catccggaca gggaggtcct ccaggccatg cgtctaggca 360
tgtactgcaa cgccgaccac atggccaaga tggtcgttgc ggcaaccgag ttccgtgctc 420
tccgtt 426

<210> 10301
<211> 346
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-004-Q1-E1-H8
<400> 10301

attaccaagg gaggcagcaga gccttgtcac atggggccacc ccaagactga gtgaagataa 60
ggttaggcaa tgtgttgact ctagacttgg aggggactat cctcctaagg ctgttgcaaa 120
gtttgcagcc gtgcggcat tgtgctcca atatgaagcc gacttccggc caaacatgag 180
catcgtcgtc aaggcgtcc agcccctgct gaatgcgcga gcagcccacc ccggggctga 240
gcatgccgga cgctaagcac cactccggcc ttttgtatga tatagataag gaaaaatgag 300
ccatcaattg ttgttcttgc tgggcacttg tcaggcgggtt tttgta 346

<210> 10302
<211> 392
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-005-Q1-E1-A8
<400> 10302

ggagggagca gttgtatagt gagaacaagg gcgttgaatg ggaatcgcct acatcaaatt 60
tcaagcacca ctgtctggcc aagttcatcc tcgtcggctt tcaagctaaa gactacatgg 120
tgagtcatgt caggcgtgtc ctgaaagcag cgggtgaatct acaggatgtc tacctgtatg 180

atagactggg atgtgccaag tgccaagaga aagtaaagaa tgcgcgcagg tatgatgcac 240
 tggtaactgg catatgccca ggcgtgaatc tgcctataaa gttcccatgt acaaacgagg 300
 accagcgtgc agtgcagaag cgaatgcccc ggggcattgg gtcacttgcc aaaatccact 360
 tcctgtcatc taataaaata aaggctgaac at 392

<210> 10303
 <211> 413
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-005-Q1-E1-B1
 <400> 10303

cgggctcgact cccatggaaa acgatagcca ccatctcatc gaaacatcgg gacaccttag 60
 cctctatcaa gtggatcag atttccagg tgcctcgtga gattttacag tttttcgtag 120
 attagatcga gtctgttctt catacctaca gtccacgaga aaagctaaaa aaattagggg 180
 tagttcctca tatecgaacc aatctgagcc tttgcataat ctttttaggg tttttgcttt 240
 gttgaatttg cggttgcac gtcgtgtcaa gttgctggc ttagagtcta gtcttttaga 300
 gtttcgagtt ctggtcatac gttgtcacgc cgccgccgca ccatcatcat cgcctagcta 360
 gcacttttgc ttatccgcca cggctctgaa tccatatcga tataccacca cca 413

<210> 10304
 <211> 341
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-005-Q1-E1-B10
 <400> 10304

ggagcgcgaag acggtggttg ccgatgatac catgccaagt ggccatgagg tgtatgccgg 60
 tgatgccatc tacatctctc totactccat gggaagaatg gagagcttgt ggggtaaaga 120
 ctgcctcgac ttttaaccag acagatggct cctgggggat agcaacaagc tcaagtatgt 180
 gccgtctaac aagttcttgg ccttcaactc aggcccaagg atgtgcccag gcaaggaaat 240
 cgcagttgtg cagatgaaga ccatcatcgc cgcagtcgtg tggaactttg acctggagct 300
 tgtggaaggc cagagcatcc aaccaagct atcttgttta c 341

<210> 10305
 <211> 354
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB31-005-Q1-E1-C10

 <400> 10305

 ggtcgacgtc catgtaaacg atatctagca tcacatcgaa agacgggaca cctttgcctc 60
 tatcaagtgg tatcagattt ccaggttgct cggtgagatt ttacagtttt tcgtagttta 120
 gatcgagttt gttcttcata cctacagtcc acgaaaaagc cacaagaaaa ttagggtttag 180
 ttcagtatat ccgaagcaat ctgagccttt gcataatctt tttagggttt ttgctttgtt 240
 gaatttgagg ttgcatcgtc gtgtcaagtt gctggtcgta gagtcgagtc gtttagagtt 300
 tcgagttctg gtcataagtt gtcacgccgc cgccgcagca tcatcatcgc cttg 354

<210> 10306
 <211> 349
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB31-005-Q1-E1-C12

 <400> 10306

 tagcgtctag aattctaggg tcgacgggtc tgcctaaat tcaagcattg cacacttagg 60
 ctaccagct gtcaacgacg ggacatggca tttttgcaa tccgagatga cattaagtga 120
 cgttgaccgg aatatgtctt aataagctgc caccagtga caccgttgaa ccgtttccaa 180
 caacacaggt ctcgacaatg attcaacggt gggcagtga accgcagaag cccaagacgc 240
 aagcttcgcc aacgcgtgac cggtgacaag accgctcggg aataaacgtg tacgcctga 300
 cagctgacac ggcttcaccg atgggaaggg ggagcacagg caagtggcc 349

<210> 10307
 <211> 371
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB31-005-Q1-E1-C2

 <400> 10307

gggtcgacgc gttggcatgc cgaaagacat gccagctgat ccgcgcatca caattaaaag 60
 ggcagtgcgc tgcagcagat gtaaaggcta tggtcacaac aaagcaactt gcaaaattcc 120
 tatcagcggc gaagccttgc cggccttgcc accagctgag ctctccgatg tacacaataa 180
 ggtggagagt tgctcttgat gttccctgta agcaaagtct gctatttctt tcgttgggaa 240
 cctgcggcat ggtagttagat tctagctcca agttgctctg tagtattcac tgttttgctt 300
 acgctagcga catttgtttg gtaaatacaa cattgtgatg tgaaccatta gagaaacatg 360
 ggaaattctg c 371

<210> 10308
 <211> 298
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-C3

<400> 10308

gggtcgagac acataacgag gcaaactgct aggctcatca acagttagat ggcggaacgc 60
 aagtcgtacg agatcctcct cttccctgat gataggcaca tgccacgcca gctatacgac 120
 cggatctata tggaggagag gatctgggat tttgtcgaca gaagcctatg acagtgggag 180
 aaaattcatc tgtacaaatc tgctgttgcc ctgtgtgact ttaaggtgga tagttgggat 240
 gacatcgtgg acgtcatttc agttcccagc atcctgtatt tatccgcaag tgcacgga 298

<210> 10309
 <211> 427
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-005-Q1-E1-C9

<400> 10309

ggccgaccat ggcgtctacc aactccgggg gcatcccat caaggccgaa caggattcgg 60
 atggctcggc ccagagcaca gctgacatga ctgcttttgt gcaaaatctt ctagttcaga 120
 tgcaaaccag gttccaaacc atgtcagaga acatcatcac gaagatagat gaatgggtgc 180
 aagaattgat gaattggagc tgagcatcaa tgacctcaag gctgaaatgg gcancgatgg 240
 tatgaccct actaaagtga aggacgaaga atcaaagcca gcagacagcc cttoctgagt 300

gaagcagaag tagcagaagc aaggcgtatt agtcgtgggtt ccatgtcgat atcatcagcc 360
attcatcact aacttactgc atgttaggag atgttatttg cactgggttat atgcatatgg 420
agatata 427

<210> 10310
<211> 318
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-D1

<400> 10310

cgggtcgact catttttttg ctcaatcgaa tatgtgaccc cataactcatt atagttgagc 60
ggcaaggagg gtgaaatgca ccatttttca tctctccaat gattgacgtg tttgccgaat 120
cgcaaccgga gcctactcat gtgtcgtcct gacctgacct aaaacgtgcg agatctatca 180
caagcattgg ctctgggtgga ttggatgttc atttccgggc ccaaccgac atctcttacc 240
gatacgtcca gtgtcagctt tgccacatgc aagctaata gaagcatcag aacctgtaat 300
gcataatgat cggcagtg 318

<210> 10311
<211> 313
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-D10

<400> 10311

gtcgactcca actgcaactc caagtcttcg acgtcactgc aactctatgg tgttttatga 60
gagagcgaat agttgcatgt ctgctactac gcagacaact gcaagtgtca cccaggctg 120
ttgctccatg gtgttttgtc cggaggggca gttgcatgtg tgccactaag catgcatatg 180
caagtgttcc cctgactgca actctgtgtt gtttttgttg ggggggagac gttagttgca 240
tgtttgtcat taagcacaca actacaaatg tggaccata ttgcaactgg atgtgttcaa 300
tgtgagtgca act 313

<210> 10312
<211> 393

<212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-005-Q1-E1-D3
 <400> 10312
 ggctcgagcgc cgaagacgac agaaaggtgc gtccttttcag ggggtggctag aggctgtgga 60
 tggcagaaga ttggtgcttg gatcaatctt ggtgcctact atattgtcgg catcccctcg 120
 gcctacctca tagccttcgt cttgcaagtc ggcgggacgg tacatcaaata gataaataag 180
 aaagaatccc ttttcctgcc ctgaatttgt agtgagttca tatgtgccag tgggtttttga 240
 gtgactgatg ctgtgggttt tatcggtgaa cacgaacagg gactttggct gggcatcatc 300
 tgtggcctga tgggtgcaagt cctgctgctc atggccatca cgatatgcac agactgggat 360
 aaagaagcgg gtaatgcaaa cgacagggta ttc 393

<210> 10313
 <211> 431
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-005-Q1-E1-D4
 <400> 10313
 gggctcgacca ggccatcgta cggatgtcgc ttgttgacac agacgcggcc ttgccggcag 60
 acaggcatcc tgagcgccgc ctcaaggcat cattcaaggc atttgaagag gcagagctcc 120
 ctaggctgaa ggaagaaaag ccaggcctaa cactgaaaca gtacaaagat atgatatgga 180
 agctatggaa gaaatcccca gacaaccctc tgaacaaggc aactgagtga ggatacagtc 240
 ccagtttcgt accgattgat atggattcta aggcattcaa tggaaacagaa ctgcagctgc 300
 ctcaagtatc ttgtccgtgg agtgaaatga tgtgtggcat agcttgaacc aaataactcaa 360
 gcttctcagc taataatcaa cagatcaatg caatgtatat tctgaggggtt tgctttttgat 420
 tagagagatt t 431

<210> 10314
 <211> 371
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-005-Q1-E1-E1

<400> 10314

ggtcgagtct gaaaaactca gaaatggtga gatccagtga aagacatctc atccttgtgc 60
gagggttaatc aaattcaatc taaggagaag attctgccat gacaaagcca aaggccacac 120
aaatcccatac tcaaagaaat atccggagag gatgagctga gcacatgcgc ctgcattcca 180
gatgctctta ccaatttacc atgcaactca acgaccttga atccttgata gcacctacga 240
gagagctacc catacaatcc aatccaatcc aatctgctgc taaccaactg cgccaatatt 300
ttctacgctt cttctacaat ctcagacgga tcgctctgca acaaggatcg acataactgg 360
cgtggggcga t 371

<210> 10315

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-E11

<400> 10315

gaagacctct gttctttccc ttgcgcacga acagcccctc cgacggcggc gagggcggcg 60
aattggcatc ctccctcctc gactcgacgc gcgcgtaatc cgagactacc ttcaagagga 120
caagatgctg tggcgcacga ttcgcagtat ggaggtgatg gcgcattctt ctagtttctt 180
tcttccgaaa ttgcatcagc ctgccaagac tccagcaaac aactatactc tggttgttct 240
taaccagcag cttccacggt tcatgcctcg cctctgggct caagagcagc aaagatgaga 300
atatgtgctg atggtggagc caatcgtatt tttgacgaga tgtctcaaat gacaaatgac 360
ctggacagaa ataggtatat tccagaaata gt 392

<210> 10316

<211> 331

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-E3

<400> 10316

ggtcgggacc gagccggatg cgaatgtcaa gcaggcgatg aatgagatca atgcagctgc 60
aaggatgagg gtggctgcaa acgagaaggc ggaggctgag aagattgtcc agaccaagcg 120

tgccgagggg gaggcagagg ccacgtacct gtctggcctc ggtatcgccc gccagcgcca 180
ggccattgtg gatggcctga gggacagcgt cctgggcttc tcagtcaacg tgcttggcac 240
cactgcaaag gatgtgatgg acatggtgct gatcaccag tactttgata ctaggaaaga 300
gatcggcgca tcttccaaat cctcgggcgg t 331

<210> 10317
<211> 438
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-E4

<400> 10317

gggtcgacac gatggttgca tggaccaaag atatcaaggt gtcagacccg ctcgaggaag 60
gttgcaggct tgggccagtt gttagtgaag gacagtatga gaagatcaag aagttttag 120
cgaatgctaa aagtgaaggt gccaccattc tgactggggg tgtcaggccc aagcatctgg 180
agaaaggttt cttcattgaa cccacaatca tcttgacat caacacatca atggagattt 240
ggagggagga agtctttggt ccagtcctgt gtgtgaagga attttctacc gaagaggaag 300
ccatcgaact ggccaatgat actcattatg gtctggctgg tgccgtgatt tctggtgacc 360
gtgaccgatg ccagagatta gctgaggaga tcgacgcggg gtgcatctgg gtgaactgct 420
cgcagccttg cttctgcc 438

<210> 10318
<211> 335
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-F1

<400> 10318

cgggtcgact tccaccagag cgaaatccac catctcatcg aaagacggga cacctttgcc 60
tctatcaagt ggtatcagat ttccagggtg ctcggtgaga ttttacagtt tttcgtagtt 120
tagatcgagt ctgttcttca tacctatagt ccacgaaaaa gccaaaaaaa aaattagggg 180
tagttcatcg catccgaacg aatctgagcc ttgcataatc ttttctgtat ttgcgttggt 240
gaatttgccg ttgcatcgtc gtgttcagtt gctggtcgta gcgtcgagtc gtttagagtt 300

tcgagttcgg ttcacaagtt gtcacgccgt cgcg

335

<210> 10319
<211> 356
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-F12

<400> 10319

catcgagtag accctgttat tgtgagaatt cttaattcaa gagttatagg gagggactta 60
tgtcaccaca aacagaaact aaagcaggtg ttggatttaa agctgggtgtt aaagattata 120
aattgactta ctacacccca gagtatgaaa ctaaggatac tgatatactg gcagcattcc 180
gagtaagtcc tcagcctggg gttccgcccg aagaagcagg ggctggagta gctgccgaat 240
cttctactgg tacatggaca actgtttgga ctgatggact taccagtctt gatcggtaca 300
aaggacgatg ctgtcacatc gagcctgttg gcggggaaaa cagccaatgg gtctgt 356

<210> 10320
<211> 389
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-F8

<400> 10320

tgcaccccaa atggttcccg ggaatgccag tgtgctaaat gctaattggtt ctaatgcccc 60
taatggaagc ttgccttccc atagctggcc taatctaggt tatcagaacc ctgcatctat 120
tccagcagca gcaccacaaa atggtgtcgc caaggctggg aacaacaatc aggacttctt 180
ttctgggaac ttcggttttg gttcgcccgg catgccagca aatgggtcca caaccgcagg 240
tgctaacaag agcgcattcca cccctacctc ttctaccctg ccctctcaat caggcaaaga 300
gtatgatttt tcctcattaa cgcaaggaat gttctcgaag cgatgaatgg cttgaaatac 360
ttggagatgg atgaggcctc cattgggcg 389

<210> 10321
<211> 418
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-G1

<400> 10321

cgggtcgacg cagcagaagc catgaggtca ggggactggt tcaagaccat catcagcaag 60
aagaagtcca aacggggcaa gtcaaagcac gcaaagaacg ttgctgcgca acgcaatgga 120
gccaacctgc cgcaggaaaa gccagcaac gtccttctt ccagcagcga gcctgaggac 180
aacgcagcac tggaagactg ggcagctacc cggattcaga acgcgtttcg gcgccacaat 240
gcaaggagga cgctccgttg cctgagggga gttaaaagac tgcgcattgt tggccagagc 300
aatccagtta ccaagcagac cagtgccaca ctgagctaca tacagtcttg ggacaagtta 360
cagggctgag ctaagaaaag cggcgtgctt tcaaggtcac cgaacggcgc accaggaa 418

<210> 10322

<211> 418

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-G10

<400> 10322

attctagggc cgacttccac caaaacgaaa tccaccatct catcgaaaga cgggacacct 60
ttgcctctat caagtgggat cagatttcca ggttgctcgg tgagatttta cagtttttcg 120
tagtttagat cgagtctgtt cttcatacct acagtccacg aaaaagccac aaaaaaatt 180
agggtagtgc catcatatcc gaaccaatct gagcctttgc ataattttt tagggttttg 240
ctttgttgaa tttgcggttg catcgctcgtg tctagttgct ggtcttagag tctagtcttt 300
tagagtttcg agttctggtc ataagttgtc acgccgccgc cgcaccatca tcatcacc 360
tgccatctac caccaccgct tttccgccag cgcttcgaat ccgtaaccat ataccaac 418

<210> 10323

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-G3

<400> 10323

ggtcttaaata acccgggtcg acagacgaca gaaaggagc ttgactggca agaccatcac 60

ccttgagggtg gagtcgtctg acaccatcga caacgtcaag gccaatgatcc aggacaagga 120
 gggcattcct ccggaccagc agcgcctcat ctttgccggc aagcagctgg aggatggccg 180
 cacccttgct gactacaaca tccagaagga gtccaccctg caccttgctc tccgccttag 240
 gggaggcatg cagatcttcg tcaagaccct caccggcaag accatcacac ttgagggtga 300
 atcctccgac accattgaca acgtcaaggc caagatccag gacaaggagg gcattcctcc 360
 ggaccagcag cgcctcatct ttgccggcaa gcagctggag gatggccgca ctcttgctga 420
 ttacaacatc cagaaggagt ccaccct 447

<210> 10324
 <211> 341
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-005-Q1-E1-H1
 <400> 10324

gggtcgagcg taaagttgac gcaggagcta acccaaagaa gaaaaaagat gcagccagtg 60
 ccaatctata gagcacactg ctagtgtgtg tccactcagg ctgctgttat tcacattcat 120
 cgtttgtaac tttgggacta aacaggaaaa gaatgctggg ttttgagcaa tgttgggact 180
 aagtacagca cattcagcat gtatgctttc tcatatcgaa tttatgcgcc gtggattaat 240
 tcactcactg tgataagaac gttgctaatt gtgcctttgg tggaacaggg ttactaattt 300
 aattgttgga gaattgtatt tccaagtcgc tccgaagtgt g 341

<210> 10325
 <211> 378
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-006-Q1-E1-A11
 <400> 10325

ggattcatca aaaagctggc gtcaggctgg atctgatgga agtagtcagc tcaaactgaa 60
 agagccatct accaatgtgg tcttagctga tcatgttacc acgaagaaat ggtagcaagt 120
 tgttgatttc gacgaccacc tcgatgatat cagcaagtaa gtggaagagt ctacaagtgt 180
 catgaagcta tagtttgtaa taccacacaa agaagttgta cttctttttta ataaccatat 240

tgagtgcttc ctttcctctg tttacattat ttccccttgc atatttgcag ggactgggtg 300
aacgcaagcc tgcttggttg acacgggttt gagatcaact ttgtcacata tttatttgaa 360
ctggctagaa acaaggca 378

<210> 10326
<211> 406
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-006-Q1-E1-A4
<400> 10326

tagccgtctt aaattctagg gtcgacaatt taaacgacgt gctcaacttc aactccggag 60
acatcgacag catgaatgaa gatgcaggag ataccgacga accaacgccc atagggcatt 120
ggacagccac ctcatctcac gatgtgtaca tgggtgatac ccctaaagga agcgacaacg 180
aggaaaaagg ggatgggacg ggagatcgac ccccgaaaa gcaatcaaag cgtcggcgta 240
aacaccgacc caagccctgc ctcaacaaaa acccagccat agagcaagac gagccggtaa 300
acgactggca tgctttagag caaccgtctg aacaaggaaa cacgtataga gaaaccgaac 360
atccctcctc gggcgaaaac ggcgacctca caccacataa acctac 406

<210> 10327
<211> 441
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-006-Q1-E1-B1
<400> 10327

gtcgacggac cgtaattac tttgattgaa tatgatcctt ttcattggtta tgaaactgaa 60
actattgtgg cacatcttac taagttgaat gatatagcca ccctttttac tcatgatgag 120
aaaactcgat actactttat tctcaaatta tcccctttct cattaaaggg ttatgctaaa 180
gcttggtaca atattcttgc tccatagttgt gtgcgtagtc cccaggatat gatttattac 240
ttctagaaaa aatattttcc tgctcataag aaacaagctg ccttacagga aatatttaac 300
tttgtgcaaa ctaaagaaga gagtctccca caagcttggg ggaggctttg ccagttactt 360
aatgctttgc ttgatcatcc tottaagaaa aatgagatac ttgatatctt caataatggg 420

acaaccgatg cttctcggga c 441

<210> 10328
<211> 451
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-B3

<400> 10328

attctagggt cgactcatcg actcgaaaac cttgtcggca atataatcca tgtggtgtca 60
atcagcatgt gggaaacaat gtccatgtcc tataaatggg gcatgctgtg agaaatattg 120
tgggggacaa tccaacaac aattgcaggt actttagcgt tgtctctatg attcatgcat 180
gagttgctgg tgttgtcatt ttcaattcag tggtatatca ttttaacaatc acaatccagt 240
cagtaggcct ggcggaaagg aattaagatg tacactggca agaagaagat ccagaaggac 300
aagggcgctc agacctctga attcgaggat accatcgcg aggggctcac cacaaatcac 360
ttgcaagaag ggctcagttc gaaaactaag gttatgcttc accaaggatt tgaagggtcc 420
ctcgccgtgc cgtggacacg attcaaccat g 451

<210> 10329
<211> 432
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C1

<400> 10329

tccagaattc tagggtcgac gagcagacga cagaaggggc ttccgggtcac catcggagcc 60
ggcgaccggt ggcagccgcy cggggacgcc gcgcgatctc ctacccccac ccccatccca 120
gtctaccaca gcgacaccgt gtgagatccg tgcactcatg gtaggctcag ttggtgcctt 180
ggtggactag tgaagtgaac ctgtatcaat atcttcaggc tctggttcaa tggcctacga 240
gatcagttag atcaaaagga tctgtacctt tcttccttgg tctctttctt cgatttgtca 300
gatggcctgt tgctggtata atcctggaac tgtatggatc ttttgcctc ttcagtgggt 360
acggggctcc tatccaagcc ttcctatata agattccaat cattggatgg attctgcaat 420
acccttttca gc 432

<210> 10330
 <211> 413
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB31-006-Q1-E1-D1

 <400> 10330

 attctagggt cgacacgaca gttttggatt tcatccgaaa aaatgaaatt tgaacgaaat 60
 ccgcccattct cgtttggggc cgggtactaat ataatccggt caaaattttt ggccttattc 120
 gaatttgctg ctcgggcccat ggtccaaaaa agctgcaacc gagcctttct aggggaactc 180
 ctatacgccg cattttgccg cgagtagtcg ccttttcgca cagagccagc tcacctgggc 240
 cggcccattt gctgtaggga tgggaaatca caaaaataaa aaggctccag caatacgact 300
 caaacacaca acctttcagt aagggtgcgc ttgcgctagc cacctcaact gactacctca 360
 catgtaaact tggcatcgcg aatattaaag aacctagcta taaaacttaa aaa 413

<210> 10331
 <211> 345
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB31-006-Q1-E1-D10

 <400> 10331

 cacaggtcta ggactcgagg gtcgacacgg ctggcgaaga tgagtcatgg gaatgtgcgt 60
 gtgggagaca cataggcaca tatatatatg tgcgtataga gggctagtag agaccgtgcg 120
 tgtgtatata tgcattgtgag agaaatagtg tttccaact aagattagtt aaaagagtgg 180
 tacatagtag tcagaaagag agtgagagag agggatacag agagagcatg tgcgtgagac 240
 tccccgacac cccaagagag attgtgagca tgtgtgaaag agaaatgccg gtgcatataa 300
 agtgtgtgca cttatgcggg agatagagag atatacaacg cgttt 345

<210> 10332
 <211> 443
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB31-006-Q1-E1-D3

<400> 10332

tccagaattc tagggctcgac agccaaccag atgcgcatat caagcaggcg atgaatgaga 60
tcaatgcagc tgcaaggatg aggggtggctg caaacgagaa ggccggaggct gagaagattg 120
tccagatcaa gcgtgccgag ggtgaagcag aggccaagta cctgtctggc ctcggtatcg 180
cccgccagca ccaggccatt gtggatggcc tgagggacag cgtcctgggc ttctcactca 240
atgtggctgg caccagtgcg atacgacagt gatggacata ggtagctgca tcacgccaga 300
tatctattga ccactatgaa ttgagattgg agcgtcctcc atgtcctctg cggtgttcat 360
cccccatggc cctgggtgagg tgccgcgacat cgccacgcag atccgtgacg gtcttcttca 420
aggccagtct gcctctgaca act 443

<210> 10333

<211> 413

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-D5

<400> 10333

actcgcgggc cgacactgat caccaagatc cgtcatgctc catactgatg cataacaagg 60
ttctctcggc ggttgaatt ttgcaagatg aagttgatcc tatggtttct gtcataaagg 120
ttgagaaggc acctttggag tcttatgccg acattgggtg tttggatgcc caaattcaag 180
agatcaaaga ggcagtggaa cttcctttga cacatcctga gctatatgag gacattggga 240
tcaggcctcc gaatggagtc atactatacg gggaaatctg aacagggaaa actctacttg 300
cagaggctgt tgccaattcg acatcagcaa cattcttgcg tgttgttggg actgagttga 360
tccagaggta ccttgggtgac ggacgcaagc ttgtaagaca actgtttagg gtg 413

<210> 10334

<211> 370

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-A3

<400> 10334

catcacatcg agggattcgg aaccgcgcct cgatcatgtg gcaccacatt tccatgttgc 60

tcggtgatat ttgacagttt ttcgtagttt acatcaatgc agttcttcat agctagagtc 120
gatgatcaag gcaatcatca ttagggctag ttcattcccat ccgtgccact ctgagcattg 180
cgggatcctt tctgtagttg ctttgtcgaa tttgcggttg cattctcgtg ttcacatgct 240
gggctgacag tcgaggctgt gatactttca agttcagtat acagggttgta aggccatcgc 300
tgcagtatca tcattctggga tgcgatctat caccaccgct ccgcatccgt atccatatac 360
caccaccaat 370

<210> 10335
<211> 402
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-A4

<400> 10335

tccggtgggc aaaggcggct tttaagcaga ggatgtggga gtgttggcca catttggttt 60
tcgacttggg tgtctaaata ttctcaccat acttggctcc ctctcggcct ttgcgtcatt 120
ggcgcaacga gtcatttagt taacattcaa tgaagaaagg tatgtgctac tttgaagggt 180
tagggtttag ggttcattggc ccagatccaa caagtgtagc tttcgagagt gtgtactgaa 240
accaagtgtg gtgttgggtt ctgtgaatag acatgaaaag agaagatcgc ttggagcagt 300
ctgcagggtt ttgtctcatt caccatgta tgtatataca acagttgttg ctggagataa 360
ttgtatctat aatcctcata ctgcgcggcg acgtccaact ca 402

<210> 10336
<211> 454
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-B1

<400> 10336

gtacttgtca aagcttcccg ggtcgacagg taatttcaat cattattaac tatatgtcgg 60
cctctttaat tcgtcatttc ctgatatcaa ctatttaata actcatttat tcattttctt 120
tgccggcggg cagggttgg gaaaatttca tcaacgtgac tccaggccaa tggcgaaaaa 180
atgtgtattg gtttcgacct aaggtaagta attaagtagt actagctagc taccatctct 240

ttaattcttg tttcaatact attaattgtc atgcttgatt aattattatc tgattaaatt 300
 ctattctcgt aaaggccctg aagcaggcgt cggggactga agtgtgtgca tactacgttt 360
 gcgagaacat tcgcatgatg gcgtccgaaa ggagcaaagt tgatagacag ctatgggtac 420
 gtttgccaga acactattca caattttttac atca 454

<210> 10337
 <211> 242
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-007-Q1-E1-B12
 <400> 10337

gaccaaattc tcagcatgga gatctacata ctaaagtga tgcatcaata tacaggggac 60
 cactagtttg ccccatcatg agtgttcaaa acctcttctt ctgacaatca gtttgtgtgt 120
 tccgggtgac tgagctctaa accttttatt gattgggtcc acatggctgg tcacattttg 180
 gtggtcttac gtatttgcaa caactaactt catgcatcag ttgcactcat cctctttggt 240
 tc 242

<210> 10338
 <211> 406
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-007-Q1-E1-B3
 <400> 10338

tacatttcag tggccttcat tcaaagtctc aaggctttga tgctgtggc gacatttata 60
 atggcogttc tatgtggtac tgacaaatta agacgggacc ttttcttgaa catggtgctg 120
 gtcagtgttg gtgttgtagt ttcacatcat ggggagattc attttaatgt aataggaaca 180
 ttataccaag taactggcat tgttcggaa gccctcaggc tggctctgac acaggctctc 240
 ctccaaaaaa agggattaac cctgaatcct attacaagtc tgtattacat agcgcttgc 300
 agtttcatct tcctatttgg tccatggtat ttactggaaa agccagaaat ggacatctct 360
 ccaattcagt tcaattattg gatatttttc tcgaatgcac ttgctg 406

<210> 10339
 <211> 400
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB31-007-Q1-E1-C11

 <400> 10339

 ctcaccatca taagaggaag catgggtctc acgagtcccg caactggtag tcaaaccat 60
 acctttaaat cttgcctcat attcaaagac ttgattttgg agatcataga tttgtctttg 120
 cagaaagttg atttgctcgt tgagggtgaa gacgacgtcc ttcattggact ggccatccac 180
 cttgtgatca cgggtgaaat atgtaatcat gaggtgattg gcgttgagtc cgcgctccac 240
 catccccttg cacttgagaga cctcctgctc catggcttca agcctggcct ccacgggtccc 300
 cttccccttg ggcccctgga tgtctcggat gtggagcacc ccctcatgca tctcaatggc 360
 ttgagcgtgg tgataatccc aagtgaagg aatcatcgta 400

<210> 10340
 <211> 443
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB31-007-Q1-E1-C2

 <400> 10340

 tccgggccga catgcaactc gacaaagggt ggcccacagt tgcgagtcga aggtggactt 60
 gcaacttgga aaaaaagtct agccccattt gtgtcgagag cgggcttgca aaaaagacaa 120
 aaatggttgg ggccaatta agaatcgagg gtggactttc aactgggaca aaaaaggctc 180
 gagccccgtc gtgagtcaag ggtagacttg caattaggat aaaaagtgtc gagaccggt 240
 tgtgagtcga gagtgaatt gcaacaggga aaaaaggta gccctagtt gcgactcaag 300
 ggtggacatg aaactcgtac aaaaaaggct agactccagt tgcgagttga ggggtggactt 360
 gcaactggga caaaaaaag tcaggtccta gttacaagtc gatgggggta ttgcaactgg 420
 gacaaaaaag ttcgggcccc aat 443

<210> 10341
 <211> 440
 <212> DNA
 <213> *Triticum aestivum*

<223> unsure at all n locations
<223> Clone ID: LIB31-007-Q1-E1-C3

<400> 10341

ccgggcccag acaggtccca gactaggcgg gatagaaggt atcctgagga tgagcgcgac 60
agtcatcatc gccgtcgagg agaagagcgt gctgcccacg acggcctctc acgctctcgg 120
ttgcaaggtc ggataaaact tccaggggag acatcacttg acagacttgg cccacaccca 180
cacctagaga aagagagagg gcatagagac aggttgtctc caccaaagca aacagacctt 240
cgagcaaagc ttcatgatag gctaaaggct agatcgaatg aggagggtccc tggtaacctg 300
aagagttcag tggtaaaagc aagtagtggt gaggatgctg ggggtggtgaa cttttctggt 360
ccaaagagcc ttgcagagtt gagagcaaag aaggctgctt acagatcagg aganaaact 420
gtcaagaatg ctggcogtgt 440

<210> 10342

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-C4

<400> 10342

gggccgactc ccaagaaggg gaagaatgtc gagctgccta ccgtcaaagt cacaagaac 60
agcgttggcg gcggcagggt ctcggtcacc gttgagaaat aagcttggct tgcagcagca 120
ggccaaccgt cgccaagtga tctaataag ccggcggcag agaatttttag cccgtggtat 180
tttgggtagt agttaattta gcacaagata ttttgagtag ttaattccgg atgatggtgc 240
tggtatctgt tagatagttt gagtgtgcct gtcctttagt ttcttgaaac attgtcgtct 300
gccctagtgc aaattcgaag taactataca ctccaattgc aaattataaa tatatatgtg 360
cctgagttat cgccatgttt gtcacgcgat ctctca 396

<210> 10343

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-D1

<400> 10343

tcccgggtcg acaaacccta gacgatgtag ttttgaatta tgaacgtagg atatgtcgtc 60

atcatcatcg gacgacgaaa gtctccggca gagtgcgaact ggtgccacga cgatcgaggt 120

ctgtgcgaca tgcctcacct ggacgatgat cggcgcttca gcattaagct cgaggagacc 180

ttcgaagttg aaacggtaca caacgacgac aagtgttatt ttcataatta agcatgactt 240

caactatttc aacgtgtaat tttcatcttt tacaattcga gtatagctta tcccatgccca 300

tgcaagacgc tatgtcttgg agaggatgga ttttgaagac catgaaattt ctgaaacaaa 360

gaaaattcac ctaaggactc atcacgatgt ggactttgaa gtaaattctat ataattctga 420

gagcgtaacc cat 433

<210> 10344

<211> 454

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-007-Q1-E1-D3

<400> 10344

ggtacttgtc taggcttccc gggccgtaac ctggatggac ctcgccgccg ccagggactc 60

cgacgacatc tcccacaccg tcagctacag cgacatctac aggatagcca aggggtgtagt 120

agaagatccg tcccataacc ttttggagtc ggtggetcaa tcgattgccca acaccacgct 180

gctcaagttc cctcagatct ctgctgtccg agtgaaggtc gggaaacctc atgtcgcggt 240

gcanggcgtc gtggactact tgggagtgga gatactgagg cacagaaagg catgagcttg 300

agcagaactt catttgggaa agcctggcca aaatgcccc tcagaattgc agttgagctg 360

atttctgtgt ctcatctata aacgtgctgt tgattgtcct gttactcttc ggctgatgct 420

gaaattgccg caatcacggg aaaaagattg atag 454

<210> 10345

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-D4

<400> 10345

ccgggcccgc gtcaccgagg gtatcactag atttagtttg atgatgtgtg tgggtgggtaa 60
 tgttcactca gtcccaacct gtgtgttgga gtgggtgaga caagatttta atgactaatg 120
 actacgtgtt tcattaataa atatacacac agttttgata aaaaaatgaa taaatatatt 180
 ttagcatcag cagaatggta atattatcca tgatattttg ctattccaca cttacatctg 240
 tctgccatgg gttcctgaaa gacaaacaat tgtgattgaa cagaggaaga gcacatcact 300
 ctactcaat ggctggcttt ggcattcttt aactacacc tttgaccaac accatcccat 360
 cgtttctcaa attctgtgta gcaaaatttg ctcggtgtat tggtttactc taatatctcg 420
 gtaaaaaaag ggtatggag 439

<210> 10346
 <211> 443
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-007-Q1-E1-E3
 <400> 10346

tcccgggtcg tacagatcaa tgacgccctt gagacagcct gcccggtag tgtctcgtgc 60
 gccgatatcc tcgccctcac tgcccgtagc tcgactgtcc ttgttggtgg cccttactgg 120
 gacgtgccac tcggtcgcaa ggactctctg ggtgcagtgc atccactcga tcatacaatg 180
 acatccctgc cccaacaac accctaccca ccatcatcac taagttcaat cgcctcggtc 240
 tcaacatcct ccatgtcgtc gccctctcaa gtggtagac catcggcttg tctcgtgca 300
 ccagcttctg gcagatgctg tacaaccagt cagacaacgg tctggccgac agcacactgg 360
 atatgtccta cgctgcgcaa ctaaggcagg ggtgccaccg catcgggtcg tacatcaatc 420
 tcttcgcact ctacgtcgtc agc 443

<210> 10347
 <211> 230
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-007-Q1-E1-E4
 <400> 10347

cagcaggcat tcattctcgg atctgcatga actactacgc gatgagtga ataacaccca 60

caacattcca tgcattgtctc agtcaacccat ctctaacttt acatgcagga aacatgtggg 120
 actgcatgct ccatcatatt gggcgagtgt tgtcatcact aagtcaagtg agggcaatat 180
 gaactctaac gacttaagct ctacctcgat tatgacatca catatatatta 230

<210> 10348
 <211> 272
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-007-Q1-E1-F10
 <400> 10348

gacgcacgcc tcaggtctga gtcgcagttc tcaaccctga gaaagaggtc gctcactctg 60
 ggcgggggaga cacagagcct gggatgggga ccattgtcgt agggatcgct gagtcgcgtg 120
 gggaggcgga gacgtgccgt gggcaatcct ttggtgcctt cagtggcctc gagaatgggt 180
 ccctctttgc cttcagaatg gctgtactgc taggaagctg gatgtaaaag gtagtgaggc 240
 cgtagtagtact ccatgggtca gtcccatact gt 272

<210> 10349
 <211> 437
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-007-Q1-E1-F3
 <400> 10349

tcccgggtcg taagcgatgg gctcagtgga ggacttgacc tcttttgatc caaagagggt 60
 gaagtttctc tggaaagttt taatttatct catattgatg taaaggtcgg gaaagataat 120
 aagaattgggt gttttactgg tttttacggg gagcccaggg tggccaatag gcatcacagc 180
 tggcagctct tacgtacctt attttttgtc caacacgaag catgcatctg tatgggtgat 240
 tttaatgaga cgcttcaggg ggacgagcat tttggagcca acgcaagacc ggagaggcaa 300
 atgcggtgctt ttcggaagc agccgcggac tgtgcactcc ttgatgtggg gtggcggggg 360
 gtccctttca catgggataa caagcagcag gggaacgcga atgtgaaggc tagactggac 420
 tgtgctatgg tcaactc 437

<210> 10350
 <211> 401
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB31-007-Q1-E1-G11

 <400> 10350

 ggaaccggtg taggattccc tggctcgacc cactcctcaa aggtagcgcc ggtgtaaccc 60
 acgctccatg ctctcccaaa cgctcctctt gctgttgggg tttctctgcg tatttgctat 120
 cacacgacta acctgccctc acgccagatg gtctagcggt ttccacagtg gttccactga 180
 aaccgtccta tgcgtccggg gagcagatcg tcttctcctg ccagcctgtc tacgtgtcgc 240
 ggggaaggat ccggcagttt acatgccctc tcaaaggact ctggctcatc agcactctga 300
 aatgcacgcc catattatgt cgttttgggt gggatgttag tcccacctga cggtagccta 360
 tactgcgttt gcctatcgca acaccatgcg cttttcttgc c 401

<210> 10351
 <211> 461
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB31-007-Q1-E1-H1

 <400> 10351

 cgctgcagta ctggtcagct tccgggtcag ccctatgggt ttcctcaata caaacacgta 60
 tgactgtgac atagatatga tgagtcaacc atatgacgta tcgggctatc agcatgctaa 120
 tgaggatatg gatgatatgc gccggtagga aggtcgttgg aaggattgca aaaagtctct 180
 cttcatgaat tcctcacaga acacgcctgg agatgccacc tcaacacagg ctcaactagc 240
 cgggggtcgt acagtgccta gcctgggaac cctggggtaa gggtaagga agggctctgga 300
 aggtgtgccc aagaaaaagg agatgaagag attgcggaag ataactgcct ccaaacaagc 360
 cagagcacat aacagccaga agattgattc tgaagagcgt gcacccgtga aagggtcgggt 420
 catgttccat ctcacgggcy agccgatgct accgccgaaa c 461

<210> 10352
 <211> 218
 <212> DNA
 <213> *Triticum aestivum*

<223> Clone ID: LIB31-007-Q1-E1-H12

<400> 10352

cccaattccc aattctgagt cgtcttaca cccctgtcc tcgcttgggg atcatttcta 60
caacgtatcc atttcccact gatcggttt actactctct cgtgtacgc atagcgcaca 120
gggtgtcctct cattcctgta ctctcagatt tgggcgttcc actccaactg cgacgtctgg 180
ttgtctgaga ggcattgatg ccccgagttt gccccggg 218

<210> 10353

<211> 354

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-H4

<400> 10353

tgcctaccgg ggcattccca agcttagatg cttgagactt cttgaaatat aatcttgggg 60
tgccttggtc atccccaagc ttgaactttt gtgtctcctt aattcctctc atatcatggg 120
ttctcttttt agcaaaagct tcattcaca taaactcaac aagaactcgt cagatagggt 180
agtataaacc aatgcaaaac cttatcattt tctactgtaa caaatcacta tattattatt 240
ccacattaaa tactaaatgc ctctgcatat ttaatactcc tatcatcaaa tagaatcagt 300
aaacaagcaa acatatgcaa acaatgcaac cataacagca atctgccaaa acag 354

<210> 10354

<211> 309

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-007-Q1-E1-H5

<400> 10354

acctacgcct caacttgcatt tcggcttggc acccttcaca atatattatt ccagtggctg 60
ctacacttca cctatagcta ctccatctg tcgttatctc ttccgacggg tgcttcctcg 120
gggggtctcg gactctgagt tctattcaca tccgtgttta gatgtttctt tgcgtgttca 180
cttcatcccg ccactttatt ttccctcatc aggagacaat tgcactatca ctccctagat 240
tccatcttc ttacatctcc acttccaata gtctttgtc ctaccaata cgttcagata 300

cacttctgt

309

<210> 10355
<211> 426
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-A10

<400> 10355

gggtcaacga ctacagaacg gggacctctg gatatgtatg acatgatgcg acgcacatgc 60
aacaagaatt gacatcctct aatgctaact gttgaccatt cttctctgaa gtatcagagg 120
tgtggattgg aatcagtttt ttttgctgca cccccattcc gacgaggtca cgcacacata 180
ccaccgggaa tcccacgaac cctatgttcg agcgcgagcg acggcaatag catctgcaag 240
tacttgacca acacgetacc cgggtgtggt atccactatt gaggccaaac aacctagctc 300
ggtcacctt aagtgtgctt gtgtccagca cctgatgaag aacgggagaa gattgctgac 360
tttgtgccta atgatggttg cctgaacttc gtagatcaaa ttgacgacgt gttgattgct 420
gaattt 426

<210> 10356
<211> 353
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-A5

<400> 10356

ctattcacat caaacatcac ggcaccaata tcagctactt atcatttttc ctttctgca 60
gtgaatctac tcatgtcatg tgtaacatcg gtactatggg ccaacatggc tcataatgga 120
tgcacacatt tgcagcccaa tccgacacaa ctagaccata tccgagcttc taggcaagga 180
agcagctgct gtccacaaca agcatattta acacctgatg agcaaacata ctcaagtcca 240
cattccgaat ctctacacta tcttcactta catcgtaat gcaccccta ggagagctgt 300
ccaagcagtc gatctgcttc aagctcaagt tgaaaccttg ctgtgacgcc tcc 353

<210> 10357
<211> 399

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-008-Q1-E1-A8

 <400> 10357

 ggggtccactt acaccagagc gatatccatc atctcatcga aagacgggac accttttcct 60
 ctatcattgt catgtcgccg ctgccatata tcaccaccgc atcatcatca tcgctgctgc 120
 cagggaccac gaccgcacca acttcatcgc tgctgcgata taccaccacc acatattcac 180
 cgccaatccc aatccatata cgccaccaca tatccgccgc catcacacca atccgagttc 240
 acctgcaaca tatatccgcc acctgtccgc gttccatcag attcatctcc cccaccagtc 300
 ctactccaag tccagtatctt tggtactcta ttttgattt ccagatcact ccatactccg 360
 agtcctgaca gagaacgact ccaaaacttc tgtgttacc 399

<210> 10358
 <211> 350
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-008-Q1-E1-A9

 <400> 10358

 cccggggccaa caaatgctca aaatcttcaa cccatccttg tttgactttc tattttcaat 60
 aatcatgtag caaaaagcta gtatggctca tagtcatgaa attatttccc ttgatttctt 120
 gcttagttac atgcacatat tagataacaa aaatttgta aatcgtccag agggaaaatg 180
 gcgaagagaa aactgttgg cctactactt gtccttgcaa ttatgttctc ctacaatgtc 240
 ttggagggcg gtgcacacca gagccaagtt gtattctctc gcaaagtgac gaatgcagag 300
 cacaaagcat cctttagcgg gatgacttca tcccttggtg ggcgtgtttc 350

<210> 10359
 <211> 380
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-008-Q1-E1-B10

 <400> 10359

 tcccaggccg tggagacttt gagggcgctt cttgaggtgg agactcaact gccgttgcaa 60

cagcagctgc ttcatttcaa tggcacggag atgaacaatg ctgagaagct cagcgccatc 120
 ggagtccatg atggtgatcc tgtgatgatg gttgcctcca ataatacgac atctcatgat 180
 attatgaggt taaatcctga tggatcggca gtatatcctc aatctttcca acatcatatt 240
 cttggcgatt cagaacttat tgcgcaactc cttcaaaatg acccgtcatt agctcaatgc 300
 atccttggtg atgacaccac tgagttgcaa cacagcttgc agtcacacca ccaataacga 360
 gtacaactga gtcgcataca 380

<210> 10360
 <211> 291
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-B11

<400> 10360

gtaccgtagg atgcaagaca ggctcggcgg tgtctccgag gagagcacca ccggcgtaa 60
 gaggatctac cagatgcagg agtcgggtac ccgcctcttc gtcgccatca atgtcaacga 120
 gtccgtcacc aagagcaagt ttgacaagct ttaccgttgc cgtcactcgc tcaactgatgg 180
 tcttatgaag gccactgatg ttatgatctc cggcaatgtt gccgtgggtct gtggctatgg 240
 tgatgttggc actggctgtg ccgctgcact taagcaggct ggtgtcagtg t 291

<210> 10361
 <211> 251
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-B3

<400> 10361

ttcccgggac gacacgttcc tgctgagtgt cgatgagggc gctgcaagag ccggtaatc 60
 caacatgatc agatgggtca ctggggatac ggggtggcctc tttaccaccg tgaaggatgg 120
 ggagtattatc actgggaatg ctcaccatct gatagacctt gctagtcaag atatcaagaa 180
 caatgtccaa cacgttgcca acaggcgtgg taagcacact agcaatcgtg atatgcatag 240
 atctgcagct a 251

<210> 10362
 <211> 375
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C10

<400> 10362

```

ggccaaccct ccacgaatc ctcaggctcc gcggaggcat catcgagcca tccctgcagg   60
ctcttgcctt caagtacaac caggagaaga tgatctgccg caaatgctac gcgcgcctgc  120
acccaagggc tgtcaactgc cgcaagaaga agtgtggcca cagcaaccag ctgaagccca  180
agaagaagat caagaactag agtgctacta gtcagtttca tggaccgggt gaacccattg  240
ctgtgttagc gtttatgcta ttgtcgtcac gatgtcgatg aaccttactt tactttgctt  300
tcagccacca atcgtttgtg tgatgataac tgacagtatt ggtatatggt agcaaaccta  360
taattttgcc gtaaa                                                    375
  
```

<210> 10363
 <211> 433
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C11

<400> 10363

```

tcccgggctc actctgagag agaatgggcc tatcgtaaaa taacggagat cgagaccacg   60
aaacaccacc tcttttacct gctcgcagaa atggacaaga gatacccggg ccgtagatac  120
acgtcaaata acaaggagct gatccaccat cttttcaaac acgtcgaggc taaccccagc  180
gatcccctct ggcgccacac tctcggaaga gaaagactca ataattgtgt gatatatgga  240
atgccaacgc tgatggccac ttggttgtat ttggactggg agggttggaa aaatatgttc  300
gctttcatac ttggaattgg gcactagttt tctagctcaa tctcttgagt ctagatgatg  360
ctttcgacgg gacgggagta aagttacgtg gccaaacttct tgttttcaaa aggtttccaa  420
ataaaagttc aat                                                    433
  
```

<210> 10364
 <211> 433
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C12

<400> 10364

gtcaagcatt cccgggtcaa cgcagcctac catagggccc atcatagaga gggcaaggtc 60
gacgacgcac aggacgctgt catgctgcag gtggcgctcag tgtggctgcc atcgtgggtc 120
atcacatggg agggcgatcg aaggagctg ctcgctcatg gaatctgggc tggcctagat 180
gtgacgacca gttggctctt gcggctcggct ggcaggagtc ctagggcctt ctctgtgct 240
tttgaattgc tgtttatttg aatagacaac tgcataaat tagaatgaca aggtgctaag 300
agaagatcat gatacatata tggatatccc tgcattctat gaattatgaa ctgtttgatc 360
aaattgtttt gcactttttt acaggtataa acataactca ggtttgaact tagttcaaac 420
ttgattcatt ttt 433

<210> 10365

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C3

<400> 10365

gggaccacca gtcaccctcc accacccttt gaagtgtgac tgcccagcgc gctcatgctc 60
gtttttgctc ctcgcccgcc tctacttaat gcaagcccga ggaggaagag aggacgtatc 120
agagaaatct gagaaacgcc aagggtctgc ctttctctta ctgtgatagt ataatataga 180
tgaatgtgta gtgttctggt ttactatat atgcagtga cgcgtgtatg gttatgtatg 240
tgtagagaag gtgttgaaag ttgctgctgc tgtgctgtgc tgtgctgtgt tagtatgtac 300
ttgctgtggt agtatgtact taggtcgtca cccctgggct ggcacgcagc tcctcgtttg 360
tgttttgtct actatgttgt ggaggcctcg tccttccatc acgttcgtg 409

<210> 10366

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C4

<400> 10366

gggaccacgg cacagtcgaa ctctcaatga aagcaccaat gtcggtgtca aaaccgatgg 60
 atctcgggta ggggggtccg aactgtgctt ctaggatcga tggtaacagg agacggggga 120
 cacgatgttt acccaggttc ggtccctctc tatggaggta ataccctact tcctgcttga 180
 ttgatcttga tgaatatgag tattacaaga gttgatctac cagcagattg taatggctaa 240
 accetagaag tcttgtctgt atgactatgg taatgaatat ctgccttccg gactaacccc 300
 tccggtttat ataggcaccg ggggaatcta gggtttaca agagccggtt acataagaag 360
 gaatcttcac agttgatcgc caagcttgcc ttccacgcca aggggagtc aatcc 415

<210> 10367
 <211> 448
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C5

<400> 10367

ccggtcctac cttcccgggt ccaccagtg ttaattacct tggttgaatc tgatcctttc 60
 catggttatg aaactgaaac tgttgtggca catcttacta agttgaatga tatagccacc 120
 ctttttacgc atgatgagaa aaatcgatac tactttattc tcaaaatatt tcctttctga 180
 ttaaaggatg atgctaaagc ttggtacaat actcttactc ctggttgtgt gcgtagtccc 240
 catgatatga tttattactt ctctggaaaa tattttcctg ctcataagaa acaagctacc 300
 ttacactaac tatttaactt tgtgcaaact aaagaagaga ttctcccaca agtttggggc 360
 aggatttgcc agctacttaa tgctttgcct catcatcctc ttaagaaaaa tgaaacactt 420
 gatatcttct ataatggact agctgatg 448

<210> 10368
 <211> 423
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C6

<400> 10368

cgggtccgaca ttcccggggc cacagcgggt ggtaaactctg gtgatagctc cctaataag 60
 ctccaatctt tccctgatct ggaggatctc cgtcgccttg ttccatttgt tcgtcgtgt 120

cgtggagatg gggacagaaa gtggaagagg tggagcgcaa gtttgtttcg attaggtttg 180
 tgcattattct catcgggtgct tggagtggag ctacgggggcc caatggagct gccggtctcc 240
 gacgcctccc cgggtgacctt tctggccgaa gggcgggctt gtgaagccaa gctggcttcg 300
 tttcttcctc cgggcttgat gccaatlgag aggcaactgt gcaaattcaa aatggagtcc 360
 ctttcttcca tctttgtccg gagatagagt attggcggtc cggtgatctc aaatggtcac 420
 gtc 423

<210> 10369
 <211> 417
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-C7

<400> 10369

ccggtccgag cctcgcgggg tcacaacgtg ccggaaatca ctggggctgt ctctgatctc 60
 atcgccctcc cggagaccga tacagagatc aatgatctga gcggcaagggt ggtgaaagat 120
 gccgcatcga cgccgaagtt cacacagcgg gagatctcgt tcctgctgag gctgatgcc 180
 gagcttgtgc aatagcacag attgcacacc attaaactcat ggctttggat gtaaccgatt 240
 gattggcatg caggacagga ggagcccctt gtggaggaaa gcacaggttt acatactggg 300
 ttggtgtgat gtccttcggt gagccctggt actgggagag ttggggattg atatgatatg 360
 tacatgttgt agtgtgggtg gcgaaatctt tggatataca tgttgagtg aatgtca 417

<210> 10370
 <211> 401
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-008-Q1-E1-D11

<400> 10370

accctngaga caagccacac gtatatcgtc tcaggacacg accagatgag cagtccgtac 60
 aactaaaacc aggctcagag tttccccgag gtggcactgc aaggggctct agttcggacc 120
 aacacttaga gtagcactgg cgcgcggggg ggggggggta aaataaagat gaccctcggg 180

ttaattactc ccatgggaaa agtaatgggt tgtaggcaa atgtagaaca aaggttgggc 240
 cttgctggag gagtttcttt caacgcgaat tgtcaagggg ttcccatata ccaaaccgcg 300
 ttagggacgc aaaatccggg aacataatac cgatatgacg gaaactaggg cggcaagagt 360
 ggaacaaaac accaggcata aggccgagcc ttccaccctt t 401

<210> 10371
 <211> 365
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-008-Q1-E1-D12
 <400> 10371

cgggtcaacg accacagaac ggggtaacag tgactcttgc atgacttcat tgacagacat 60
 gcctatcagc tcttattgtg gttcataagt gatgaagcaa cacgaatcat ctggtgctcc 120
 tcctttgcta gtcaaggatg agttggctgt atcaaatttg gatatacaag caagtttctt 180
 agataagacc gatgatgggt gtctttccca aaacaatgga atgcacaaat ctgagttacg 240
 cctttggatc gagagcggac atagcatgaa atgtgaaagc gtatcatcct caaacatcac 300
 aggtcatgat acaccaagca aggcaaatcg aaagagatca cgaccagaag agagttcgaa 360
 gcccc 365

<210> 10372
 <211> 452
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-008-Q1-E1-D2
 <400> 10372

acggggcaaa tccgggacac actctggaca attccccatc ccgatccgat ctttactgca 60
 aaccctaccc ttctgagcc accatgtccg cctcatcgtc ctctctctc ccagttccgc 120
 cgatttccct cttgatctca ttcggtgtcc cttctgtggc gtggatctgg aaaccaatgt 180
 ggcaaggacc gggagcaggg cgggccagag gttctacaag tgtgtccgct atgatgtaag 240
 ttctctgtt ttctacaaa tctcgattag ttctttccc gttcttggtt cagttctcac 300
 acctgcatct cgcagtgttc ttgctaattt tctcgaggc tcgcgagtgt aggttcttcg 360

agttccagaa ggcatacgtc aggaggatga ccacctacca gatcgcccgt gctcaacagc 420
aggcgggggt gctccacctc cagatgcacg ca 452

<210> 10373
<211> 441
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-D4

<400> 10373

gggacgacaa acatgacaga ccagatttga acaaaattca aaaaactgaa ataattattt 60
actaacacta atattcttga ataattattt agtaacacta atattcttga ataattattt 120
agtaacacta atacttcttg aataagtagt ttgaccatag tttgagcaga ttttaacaaaa 180
agtaaaaaaa aataaaaaaa actaaaattt aagcataact ttttttcttt ttaaaatttg 240
aggattttta aaatttgcaa acaaggaatg tcatgggaat ggagatctgc cgtgccggca 300
ttagactaga cgattagtgt atgtatgttc aaaattttac ctccagagtc ggacgagctt 360
cgcttttagt tgaagtatgt cggaaatata atgaatttcg tcctgtttat atgaaatccg 420
ttgtgtttgc attaatccg t 441

<210> 10374
<211> 407
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-D6

<400> 10374

tccattatcc aaacactggt gtatgggtaa tgtcatgaaa tttctctccc cttacctaaa 60
gggtttttgt acattatc ctgtcatggg taccctgtc tgcttgcct tgggaaggat 120
atacccctaa aatatgtgtt taaacacatt ttccctttca ttgttctgtt taatctgata 180
atcacttttt cttttccctt gacttgttta acctttctca tgggttatat gatctaagca 240
gtaataattc ggtgcttatg taaacaccct ggtgtacaac cttgtcagta agaccgtgtt 300
actattgttg atgacatttc ggtaaccacc gatggacgag aactttgcct attggtccac 360
ctcgtttcaa cgagcaggaa aatggttccc ttcgtcactc gcccttg 407

<210> 10375
 <211> 394
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-D7

<400> 10375

```

gggccgtcaa aatggtgaat gttccgaaga ccaagaagac ctactgcaaa aacaaggagt   60
gcaagaagca cacacttcat aaggctactc agtacaagaa gggtaaggac agtctgtctg   120
cccagggaaa gcgctggttat gacaggaagc agtcgggata tgggtggtcag accaagcctg   180
ttttccacaa gaaggcaaaa accacaaaga agattgtgct gaagctgcaa tgccagagct   240
gcaagcacta ctcccagcgt gccatcaaga ggtgcaagca ttttgagatc ggtggagaca   300
agaagggcaa ggggacatct cttttctaga ctgctttcac ctatctggag tgggtggtggt   360
caagaagtat tactacttgt gttaagagtt tggt                               394
  
```

<210> 10376
 <211> 406
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-D9

<400> 10376

```

gggcctaccc cgggggaccg agtccatgat attttccata cagagtgatg tctacagttt   60
tggtgtgttc cttgtggagt tgatcagtgg aaggacggct gcgtctgac aaggcattat   120
tgaatgggtt caaaactttc aagaatcaaa tgatatctct acaatagcag ataggagaat   180
gaccagtggc ttatccccac aaggcatgaa ggaattgttg cgcttggcat tgcggtgcgt   240
gaacccgaca agcgagaatc gtccgtcgat gagcctggtg gaagctgaga tacaccggat   300
acgcaagcag gagatcagga ggacgacagg catgccactg ggcgacacaa ctgtgaccct   360
atgcagccag ctcttcacat cagcaagatg gaaaaacatg ggaaat                               406
  
```

<210> 10377
 <211> 360
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E10

<400> 10377

atacgcacta tcattgctat tggacgacaa gtattcccag cgtcctcttt tgccgcaaca 60
ccttacaaaa aatgccctga atatccatat accaatcata gcacgttctg gtatacaacc 120
tcttcagaaa ctcatcttgg catagattta tcaatcataa cgttggaaca ggggagaaca 180
tcccgtgggt ccaacaacag attgatatac gtttcacacc tgttgacaac atgataaaaag 240
gctgtgcaga gaagtttgct atggcgagat gaagtccact ctggcagacg tttccttgc 300
accccgatt tttgctgcag tgaatcggtt tcagatcgaa atctcaaact atcctatgct 360

<210> 10378

<211> 402

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-008-Q1-E1-E11

<400> 10378

ggagcatttt tacatgtaaa gccatcaatg gtggtattta ttagcaagac acaccatctc 60
tagaatagcg tcactctgat gatcatatgc gcgaagcgat ttcctctcgg cgactcggct 120
tctcgatgtg accacaacgg gctagtgaca ggggtgtctc cgacgaggac acacaagata 180
ccaagcattg atcacgggggt agcctggcat gtgagcgag aggagaccat ttcaaattgc 240
tttaccatct atggagccaa attgcagtct ggtgatgcgg caatgggcag actaagtttt 300
aatactaaag taggatgtca ataaaagcac atcactaaat atataagata gaataatcag 360
ttgtaatttc taacatgtan ttttcaaaaa tacatgaatt tg 402

<210> 10379

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E4

<400> 10379

ccgggacgac tacatgacac ttaaccattt atatgggcct aggaggaacg cattgggaag 60
taatacagta gatgatgggt tgcttacaat gacaaacgcc taaatccgat gttatgagtt 120

gcttcgtttg gggctgattt g gatggacat gtttcatgcg aagggttaagt ttaccatcat 180
acttttggtg taattgcgga tgcttgcaat agagggttagc cataagtgcg atgcatgtcc 240
aattaacgac atcacgcagg caccggtcca cccacatgac catcattacc aatgtaacga 300
atgcgaatca catgaatgtg atgaaaacta gcatgacgat attctcatgt gtccacggga 360
gcacttttca ctatataaga gtttgtcgaa gcttgtcctt ttctacagaa tggattggga 420
cagcttgctg cactttaatt acttttgta catgttc 457

<210> 10380
<211> 256
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E8

<400> 10380

gccaagatcg tgggcaagac tggcgacggg caagtgcgga gttcttacca ccaatgcatc 60
attctgggag cagcacgaag acggtaactt ccacgtgccg gactttcggg gttaagtcct 120
ccccacaact gggccgttca cagtatgaat tcagaatgtt ctactggtcc tcgtttaaca 180
ttccgctgctc ttctgcattg acacacattg tacgcctcat cctcctaacc cctaaacatt 240
ccatggtcac atattt 256

<210> 10381
<211> 402
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-E9

<400> 10381

attctcgggc acaagtgatt cgtaaaaaca atgagaactt ggcagagaga cgatatatta 60
agcgtatcat ggaaagtgtg ttccaacaca tgttaccaga ttgttctctg agattatatg 120
ggtcacctcg gatcaaattg gggttcaacg tttcggatac atacattgac attcaatttc 180
caaccattat gtctcaccca gatgttctct tacttgtcca agaattgtta aacaacaatg 240
actcatttat tgatgttgat gcaaatttcc atgctcgggt gccaatggtg gtgtgcagag 300
aaaagcagaa tgggtcttctt tgtaaaatga ttgcacgaaa tgaaaatgca tgtctgacaa 360

caaatcattt aactgccctt ggaaaactac aatcaaattt gg

402

<210> 10382

<211> 301

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-F10

<400> 10382

cgtaagtgaa atcgagtctg ttcttgagac atatagccca catgacgtga cacacgtttc 60

aagaaggaga tgtcactcat atacatccga atcggaacct ttacacatcc tgttttaggat 120

tttgctttgt tgccattagc cgctacaacg acgtgtctaa atcctgatcg gaaagtcaat 180

tcttttaaat tttctagtga aggcaagaag ttgtcacgcc gcagcggtaa cagcaacatc 240

gccctgtca tctacaacca cgcctagac accacagtga cgaatccgta tccaggatta 300

a 301

<210> 10383

<211> 467

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-008-Q1-E1-F3

<400> 10383

acgcctgccg tcaccggtgc cgagattcnc gggaccaccc tcacgtctcc aatgcacaac 60

attccaatca cttctctttt tgaaaaagtt tttaggcata agaagcaagt attttttttg 120

gtattttcat tttgtaaatt ttttgtttgt ttcaccacaa actaaacaaa aatagaaggg 180

aagacaaaaa ctacttagtg aagaaagcaa acaagcatac acgaaaatat caacctcacg 240

ctattgctcc cgggcaccgg tgtcagaaaa gagcttgata atcccgaagt gcaaggaatc 300

atcatagcaa tttccaaagg tggaagtgat aagtatggag tgtcgaaccc acaaagagct 360

aaaggtaaga tcaatattct cccaagtcct atctgccacc gatacaactg tacgtacacc 420

gaacgtttgc tttcatctag aaacgagaaa tacaactaca ttgtggg 467

<210> 10384

<211> 474
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-008-Q1-E1-F4

<400> 10384

acgcctgccg tgaccggggc cgaaattcnc gggaccacaa taagaccaac caagtgtgtg 60
 catgttgaca gagataatct atacaaagaa gttcaaatat tattgccccg cagggttttc 120
 atgtcttcac aagatgtacc actattttct tcaactctcaa aaattgtgag ttttcaacac 180
 tacaacaatt caatacccca aagaaagtta tgggaaaaaa atatagaaag tctagagagg 240
 ttggggacaa aaggatttct gtaactcagg ttctcacatc aatcgagaat aaagcccaga 300
 agttcaattt gaaaaagcgg agcagtttga tatctatttg aaaaatcata tttttctagt 360
 tactaaagaa taaaatcaat aagttcaatt tcaaataaca aagaagttcg atgtttctaa 420
 aaaacctact atttttcaaa tttataaaaa tacacaatga agttcaaata aaaa 474

<210> 10385
 <211> 453
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-F5

<400> 10385

cgggtccgacc ttcccggggtc caccagtcac acatcatcgg caagctgcgc agcaagctct 60
 tccgcacggc gcagatcctc tccgtcggcc cggccaagga ggacaagaaa gacgacgcca 120
 agaaggacga cggcaagaag gagccgaccc ctgtgtaccc gccgtggtac ccgccgccgc 180
 cgccgtacca ctaccactcg caccctact accacggcca cagcgcgcgag gaggatccca 240
 gctcctgcgt catctgctga ccgagtgcac gttcagtagc tcgccgtcct gcctgccgat 300
 cgatcggctt acctgcaccg gtgatggacg gcgttcgtta tatacatgac atgaccgtgt 360
 aggcgtgtac gttgcgccgg tgatccggca gctgtgcac tcggttatgct tagtttgtaa 420
 cgtgtacata cagaattaca gtatattggt cac 453

<210> 10386
 <211> 459

<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-F6

<400> 10386

accggtccta ccatccgggg tcaactgacac caaagaaata tccatcatct catcaaaaga 60
cgggacacct ttgcctctgt caagtgggtat cagttttcag gttgctcggg gagattttac 120
agtttttcgt agtttagatc gagtctgttc ttcataccta taatccacga aaaagccaaa 180
aaaattaggg ttagttcatc ccatccgaac caatctgagc cttgcataat cttttctgta 240
tttgctttgt tgaatttgcg gttgcatcgt cgtgtccagt tgctgggtctt agcgtctagt 300
cttttagagt ttcgagttct gttcacaggt tgtcacgtcg ccgctggcat atatcaccac 360
cgcatcatca tcgtcgtgtg tgccatatac caccaccaca tattcaccgc caatccgaat 420
ccatatatgc caccatatat ccgccgccat caggccaat 459

<210> 10387
<211> 437
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-F7

<400> 10387

cgggtccgaca ttcccggggg cacctgccc a ggtggatgca gtccgctcgtg cgctctgagt 60
ggactgcgga ggtgtttgac atggagctcc tgaggaacca gagtccgaa gaacagatga 120
ttcagcttct acaactcgt atagactgcg ttgccaggt ccagacgcc cgtccgacga 180
tgtcccatgt cgttgtgcgg atcgaggaga tcaagatgtc aggtggaagc accgaagaaa 240
ctaatacaaca acagagcacc ctgatctcta atggcatgag agaaaggagc cggctgcctg 300
ttgctgtagc ccatttcatt ccgttcatag acttgacgaa tgctatcttc ttcgacggcg 360
gagccggctg ttttttcacc tcttcctttt aacgaacatc ggattcgttg tcgtcgtcgt 420
cttggtgttg ttgactg 437

<210> 10388
<211> 419
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-G1

<400> 10388

ttccgggtcc actacgccgc cgaaaacagg taccaactcg aggagatcgc caagctcacc 60
tccagctaga agaagatgca agaggagtat gcctgctccc ctcgaggaga ttcccaagct 120
caccgctgcc tgctgggaga agatgctccc cttgaggaga tagatatcca ggctcatcgc 180
actagacgga gccatgtttt ggccccaagt ttcctgaagt gtagtgctgc ttcagccgtg 240
tctttctgcc gtgtcgctcc tcaaagttag tggtaactta aaacgtgtta tatatgtaga 300
tgtttgattc ggaggacatc ggggtattct tctgttctac tatctgtttg atctgcaacc 360
ttctgcatat gacaaggatg tatgcagatc cactgctagc tgatgttaaa catgttctg 419

<210> 10389

<211> 355

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-G10

<400> 10389

cagacacgac taagctgcag accgacgccc tcaaggaggc catcaccag gtggtggcag 60
acgccaagga gaagaacagg aagttcaccg agactgttga gctccagatc ggcctcaaga 120
actatgatcc gcaaaaggac aagcgtttca gcggctctgt caagctgccc catgtccctc 180
gccccaaagat gagggctctgc atgctcgggtg acgcccagca tgtgggagag gctgaaaaga 240
ttggtcttga atccatggat gttgaagctc ttaagaagat gaacaagaac aagaagcatg 300
tcaagaggct tgccaagaac tatcatgctt tcttggcctc agaggctatc atcaa 355

<210> 10390

<211> 245

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-G11

<400> 10390

ttcagggtcg tcgttgaact cgatatcggc cgcgacaact atgatccgca aaaggacaac 60
cgatcaccg gcgctgtcaa cctgatccat gtcccacgca gcaggatcac ggtctgcatg 120

cacggtgacg cccagcatgt gagagaggct gaaaagacgg gtctatgatg ccatgcatgt 180
 tgaagcgctt atgacgatga cgaactccga gaagcatgtc aagaggcttg ccaggacgta 240
 ccatg 245

<210> 10391
 <211> 449
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-008-Q1-E1-G2
 <400> 10391

gggtgcgaat tcccgggacc accatggcgt cttcaaactc cgggggcatc cccatcaagg 60
 ccgaacagga ttcggatggc tcggcccaga gcacagctga catgactgct tttgtgcaaa 120
 atcttctagt tcagatgcaa accagggtcc aaaccatgtc agagaacatc atcacgaaga 180
 tagatgaaat ggggtgcaaga attgatgaat tggagctgag catcaatgac ctcaaggctg 240
 aaatgggcag cgatgggtatg acccctacta aagtgaagga cgaagaatca aagccagcag 300
 acagctcttc ctgagtgaag cagaagtagc agaagcaagg cgtattagtc ttgggttccat 360
 gtcgatatca tcagccattc atcactaact tactgcatgt tatgagatgt tatttgcact 420
 gttatatgca tatgagatat acagtacct 449

<210> 10392
 <211> 454
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-008-Q1-E1-G3
 <400> 10392

gggaccacag ggactgctat aaagactggt cttgcgaccg gttccagagc aaatcatcga 60
 tgggtgcttga gctttggcgc tcccggcgga cagccggctt gcagcgccgc cgcgccaccg 120
 aatcctctgg ccgaagggcg gccaaacctc ttctctctag ccttgaagct atatgggagg 180
 cagtgtact ctagatcgat gttcatggct tgctgcggtg aagaactcgt cggaccaagt 240
 ggtgatgtcc ccggagccgg cgagtttggg gtcgatcggg agtggcttgg acctgattgc 300
 gttcctcttc agatctttgg ggtcctttct gcatatttca gggactgctt tgtaattttc 360

agtttgttgt gtgtcctgtt gttctggctt gtactacggt attgtaatat caaataaagt 420
 ctggggctct tttggaccct gcccttggtc aaaa 454

<210> 10393
 <211> 407
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-008-Q1-E1-G4
 <400> 10393

agaacaaagt catagccatg ccagctctgg agcatctagg tcgggctga gttgtgtgtt 60
 ggggttggac atgcaattgg gctgagcaaa ttgggtgtcg gtgttcgagg tgtattcggg 120
 tgggtgctga tgtcaaagat ggacatacac ctaggtcaaa cgggttgtgt gttagagttg 180
 gacaaacaac tatatgcata taccgggtcg agcacgagtt gcgtgtcaaa agtggacatg 240
 caactagatc ggacatgagt tgcgtgctaa tattgaacgc gcaactaagt aagggtccgg 300
 ggaatttgat gatagacatg taactgacac caccacaaaa taaagaattt aaaaaatcat 360
 gaatgttttg aacacagccc agcttcttca attctgcccc tacaaaa 407

<210> 10394
 <211> 472
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-008-Q1-E1-G5
 <400> 10394

acgcctgcct agtacgggtcc gacattcccc gggccacttc caccaaagca aaatacatca 60
 tctcatcgaa agacggggaca cctttgcctc tatcaagtgg tatcagtttt cagggttgctt 120
 ggtgagattt tacagttttt tgtagtttag atcgagtctg ttcttcatac ctacagtcca 180
 cgaaaaagcc acaaaaaaaaa ttaggggttag ttcatcatat ccgaaccaat ctgagccttt 240
 gcatagtctt tttaggggtt tgctttgttg aatttgcggt tgcacgtcg tgtctagttg 300
 ctggtcttag agtctagtct tttagagttt cgagttctgg tcataagttg tcacgcgcgc 360
 gccgcacat catcatcgcc cctgccatct accaccaccg ctccaaatcc gtatccatat 420
 accaccacca atctgtgtcc atataccacc accaatctgt gtccatatac ca 472

<210> 10395
 <211> 346
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-G9

<400> 10395

gacacgatag tgggcagcac tggggaccgg catgtctcga gttcttacct cgaacgaatc 60
 attctggaac acgaagataa tgatagggtc ctcgtgcctt acgttccccca ctaagtcctc 120
 cactcaatcg gggcgtagca tatgaactcg tacatttcga tcaattttct tttaaaattc 180
 agtgtcttca gcagtgacat aagttgcatg cgcaacatca taagcgtcat atatttcatg 240
 gtcacgtatt tcgacacgga gcatcagtcg atcgtagact acacatttgt caacaatgtt 300
 catgatgatg ttctccccgg atacgctaaa tgtagatgga ccttca 346

<210> 10396
 <211> 355
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-H10

<400> 10396

tacttgctct ccacatgcca aatgacatgc attttccatc tgggaggaac ttacatgtct 60
 cccactcca acctgatttt tcgggggggtg tgtcgtcacg ctcacctatt ggtcaaccat 120
 aaccatccca ccctgcataa atgctgttaa atggttgtgc gtagtatata gttgcgccac 180
 caaaactctc agtcaagtt ctcgtctaag ccggatgtct tcctcgactt cctctgtctc 240
 tctggcgcat atgtcgtcgt cctcgtcgcc aacgactcgc atttccttg tgccgggtgtg 300
 gaaagaactc tggtcctgtc gtcgtcggtc tcaactggcct tgggtctatcc ccttc 355

<210> 10397
 <211> 432
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-H11

<400> 10397

gggccaacaa acaagggcat acataagcaa tcaactcaatc gaaacacaag aaaactcgag 60
 aaaagatcca aatcgtagac gaaacaagca acgacttaaa ctaacaagag tcaaaaccta 120
 acaacattat taacatgtga attagatctt aacagaaagt acaagtgatc cgctacgatt 180
 cgcaaagaga ttcaactcaa acggagcaag aaactcaaaa tacgaacgaa ataagatcgt 240
 ttactaattt ggactgatgt caaatTTTtac attacaaaaa tcatgttcat gttgattaaa 300
 tgaaaagagg gcttcaagac gaaaattttg gcgttggttt caactaattt ggataaacga 360
 gtaaaaagtt atactagttt gaaaatcagg ggctgaatcg cgataaaaat aatcgcagat 420
 aagtccctaa cg 432

<210> 10398
 <211> 247
 <212> DNA
 <213> *Triticum aestivum*
 <223> Clone ID: LIB31-008-Q1-E1-H12
 <400> 10398

acgcgtcaag aggcgggttct ggttccactg cccacacccc gctctcgag gcagacatga 60
 ggacagagag aatgtcccc ctctggctc tggggatcct ggtggctggg ctctgcgcca 120
 ggggtccactg tctcccagag aatgtgtctc gagaagaaca gcacagagtg acatctgtgg 180
 atgggcactc attaccctcc accaactg acttctcctt cagcctctag aagcaatttg 240
 cttttttt 247

<210> 10399
 <211> 397
 <212> DNA
 <213> *Triticum aestivum*
 <223> Clone ID: LIB31-008-Q1-E1-H2
 <400> 10399

caaccaagcc cctcacatga caaggccgag cattcaaaac tctgagccgg atgcatgtgt 60
 gcacctgtct catttgccg aactagcctg gtccaacaca aacggtgagg atggatgacc 120
 cgagatcatg cggcacgtgc cgcgcgtgag acggtgcatg taggggcgat gaaaagcacc 180
 acataaagct gtgccgagcg cgcccgggc ccatgtatca tggagcttga ggaaaatcgg 240

tcgggtgtga ggcagcctca atgattggac gacatggagc gtgcccggga ggcatcggcg 300
 ggaggcgcgt gtgaaacgga caacatggat tcactctcac gtctcacgtg gcgatgcccc 360
 aaaaggtggg tacttcaaca tcctttacat aagtaac 397

<210> 10400

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-H3

<400> 10400

ttccgggacc acttccacga cagcaaaatc caccaactca tcgaaagacg ggacaccttt 60
 gcctctatca agtggtatca gatttccagg ttgctcgggtg agattttgta gttttttgta 120
 gtttagatcg agtctgttct tcatacctac agtccacgaa aaagccacaa aaaaaattag 180
 ggtagttca tcatatctga accaatctga gcctttgcat aatcttttta cggttttgct 240
 ttgttgaatt tgcggttgca tcgtcgtgtc tagttgctgg tcttagagtc tagtctttta 300
 gagtttcgag ttctgggtcat aagttgtcac gccgccgccg caccatcatc atcgcccctg 360
 ccatctacca ccaccgctta accggcaccg ctccgaatcc gtatccatat accaacaacg 420
 atccat 426

<210> 10401

<211> 403

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-H4

<400> 10401

gatggggcag gcatgaagag aagaacgcgt gtaggggaag gtgcactaag ggaagttgctg 60
 gcttatattc tcgaccatgc agttggtgat cgtgaatcgg gccacggtgt tgggttttct 120
 ggtgtgcctc ccacagcatt agtccgaagc ttacataggg gaaagagctt caagtttgga 180
 tctctgcaga tgtttatgga gaacgatgga agttgcgagg atatgggtcc ccgtgctttt 240
 ccagtgaagg aggtacacaa aatagcagtg ttagatatta ggtagcgaa tgctgatcgt 300
 catgcaggga acattctagt gtccaaggaa gaaggtgcc a cctgcaagct gattccaatt 360

gatcatggct actgcctgcc agagaagttt gaggattgca cct

403

<210> 10402
<211> 460
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-H5

<400> 10402

ccggtccgac cttcccgggt ccacaagaga acttcaaaag cggcgtaatg aggtggcaat 60
taacgggtgg ctgcaccagt atttcgagtc agttgtttcc atgtacgagg acaggtttga 120
gttatatgtt ctatgcagaa gatcatgcaa gaacacagca gataatcggc ctgataaaac 180
taattggttg actaatgcat ttcgaaagcc ttcgacatct actcgcctgg attatgtttg 240
cataagccca ttttctcttc cagttagaag gacaaaggag ctaagagctc tgactgggtg 300
gaggtattac tacagccttt tcttgagtt gtcggatatt gcaatgcctt ttgcatgggc 360
agtcgtggct agagtcagcg ctgcggtgtc ctacttctgg gtgtccaatg ataggagaat 420
cttggggctc aatttttctg gtataaggca atcgtctgggc 460

<210> 10403
<211> 359
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-008-Q1-E1-H7

<400> 10403

ggtccatgac ttcccggggc cactaaatgt gtgtaaaata tcatcacgaa ataatttttg 60
atgtgagctg tgcagaaaga agtcatgtcg ttttatactg aatagtacat atgcttgaga 120
tatgtgattt cgtcaggttt gcgtaggtcg cataaaacag tagttcacga ggaaagggtg 180
taggcaagta agagaccatc gatatgtatg tgtggagttt ttttttacct aaagattaag 240
tttttcagaa tttcagattg aggcctccat ggaacttgcg ctctaataagg gattgcctat 300
gcatgttggt actttaattt tagacctttt ccctaacaag tccaaatgtc gcaatcttt 359

<210> 10404
<211> 370

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-009-Q1-E1-B11

 <400> 10404

 actgcgggt cgacgtcaaa cactacgatg acgtcctatc acatcgaaag acgggacacc 60
 tttgcctcta tcaagtggta tcagattccc aggttgctca gtgagatttt acagtttttc 120
 gtagttttaga tcgagtctgt tcttcatacc tacagtccat gaaaaagcca caaaaaaat 180
 tagggtagt ttatcatatc cgaaccaatc tgagcctttg cataatcttt ttagggtttt 240
 gctttgttga atttgcggtt gcacgtcgt gtctagttgc tggctttaga gtctagtcct 300
 ttagagtttc gagttcgggt cataagttgt cacgctgccg ccgcaccatc atcaacgccc 360
 ctggcatcta 370

<210> 10405
 <211> 386
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-009-Q1-E1-B9

 <400> 10405

 catatatcac aaagataaca ctgtgtaaaa attgttcagc agatattatg aaatgttcaa 60
 tgtatcacgt tttaaaagtt tgtagagtt tcaaatttgt tcaagaaaac atttttcatt 120
 ttttaaagaa gattaaaaaa ctggatctgc cgctattgaa agtacttta ttagcggttg 180
 taattgaaga caaacgtagt cgctacctgc aaggctgcaa cggctggcaa cgattctatc 240
 cagcgtatgg tcacgggttt gaatccatcc gtcgctgcaa tttttcgtga cattttctat 300
 tatgttcgct tgtcgcctgg taaagggccg gccggttgc gcgaatcctg cagcgaaagg 360
 tgttcatttt gacgctcacg agtgtc 386

<210> 10406
 <211> 409
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-009-Q1-E1-C2

 <400> 10406

cgggtcgacc ccttctacaa gcgtgccacg atctagggca gcgctgggga cgggcaagtc 60
 gcgagttctt acctcgaagg cgtcattctg gcaaaccaag ataaggataa cttcctcatg 120
 ccttactttc ccgagtaagt cctccctca accggcccggt aacatatgaa ttcttacttt 180
 tcgatcgttt ttcttttaac attccgtggt ttctgcagt acacacgttg cacgctcatc 240
 ctccaaagcc ccaaattatc catggccacg tatttcgacc cggaccgtca ctggaacgta 300
 gactacacaa atgtcaagaa ggttcttgat gatgttctcc ccggctacgc ccaatctgga 360
 ggcatcttca ccaggcctat tcgtaagtac ggcaagcacg tgttctccc 409

<210> 10407
 <211> 288
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-009-Q1-E1-C5
 <400> 10407

gggtcgacga aattgtctat ctgggctctg tatatctaca caatatgttc ccctttgaga 60
 ggctcatggg agtcctaaag aaatatgttc gtaaccgtgc taggccagac ggaagcatct 120
 ccatgggcca tcaagcagag gatgtcatta ggttttgtgt tgacgtcagt cttgacctta 180
 agaagattgg tctccctcag tcgtggtatg aggggaaacg tactagaaaa agcacgctat 240
 gaggggactc aacaatatgt ggggacgtgc attcctgggc tcaagcac 288

<210> 10408
 <211> 222
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-009-Q1-E1-C6
 <400> 10408

ctctgtgggtc gacactacgc tctaaactga atcgtcctat gccagtcttc tccgcatagc 60
 cggccgctga gtccgacagc ttatacctcc ctgccctcca atcagtccat ggcgagcgtc 120
 cccgcaaggt gaggaaggag ggatcagaag ccataatctc tcacctcgag ccctgtaca 180
 tagcggattc aggaaagacc gaactgcccc ctgcatccaa tc 222

<210> 10409
 <211> 439
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-009-Q1-E1-C9

<400> 10409

```
ctcgcggggtc gacgaaaatc acaaaaggga ttacatgcta ggaaaatgta tgtagtctct 60
tcgtaaacia atagaagagt atttagatca ctggtgggag taattaataa ttcgctaagc 120
atcgacagca cagtgcacac ggaagaggag agtaataatc ttttttttg aaaaggatgt 180
tgaaaccccg ggctctgcat caatagatgt acaccgccat cattattaaa ttattcaaca 240
atggtctgag aagaacatac atcaaagac tgaaggcac cactcacgcc taaaactcg 300
ttaataagga tccatcgctc nccaccgttc agaatcggtc tcaccgtcta ttcgtccgca 360
aacataccac acaggggagg agccagaatt tgaacatgag tggggtgaaa agccaacttt 420
cacaaaagtc acgaaacat 439
```

<210> 10410
 <211> 393
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-D4

<400> 10410

```
gggtcgacaa cactcgctat attcattcgt atgtattcta ccgtgtggtg catctgaaag 60
taagttccgt ggactacgac aggcgaggcg aggcgaaacg acgacaggcc atgctaaacg 120
ggggacaaac ttggtctctg tgtgcttacg atggagtcac gcatttgctt tgagaactgc 180
tagcgtgttt aacctgacag cgcttgtaat tgtaggcctt ttcagcatat ttcacagctt 240
gttgtcttat gaagtgtctg acggcagcag gctgggttat gcctcctcgg tcattaatag 300
catttgtaac ttgtagagt gcacattaat ctcattgatga catatacata atacttatgc 360
tgactgttat tgtaacgacc tttatgcctt tgc 393
```

<210> 10411
 <211> 394
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-E12

<400> 10411

```
ctcgcggggtc gacatcatcc acaattcaga atcgtatgag aaccaagccc aaaagcagag   60
gcgccgtaca taccgtgctc atggacgcat caatccttac atgtccaacc cctgccacat  120
tgagctgatac ttgtcagaga aggaagagcc agtgaagaag gaggctgaca acgtcgtcgc  180
accaaggaaa gctatctaag ctaacggagt ggctgcattc gtccaagaat cttagttgta  240
gttcttctca agtacctttg ttggcagtgt ttgttgacct cttgatgttt ttgttaccaa  300
catggagtaa ggatttgta atgttgatgt tacccttggtg attgcgactg gtccctatat  360
gctagaacag gtgcgagtag ttgagcatta gccc                                     394
```

<210> 10412

<211> 371

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-F1

<400> 10412

```
gggtcgacac gtggctgggc ccaacggcgg cccatatatg ttaataaggc cggcccaatc   60
aaaggcccggt agaacttaat cacgtactag tgggctagcc caataacggc ctgcttaata  120
aaagcccattt tacggccgga aaccagatct ggaccgttaa atgttcgccc aatatttggg  180
cccattttacg aaccgaaacc agatctagcc cgttaattgt tcgccaataa tttgggcca  240
tttgcgggcc gaagccaaat ctggcccggtt aattgttcac tgaataatcc ggcccaacta  300
cagcccaacc ccgaccaatg tgaggaaagg atgatggaaa ctatgattcc ctcacaagtt  360
gggatgagac t                                     371
```

<210> 10413

<211> 158

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-F3

<400> 10413

cggttcgaca ccttcatcaa aaacgtttct cactacatct ccttcgactc gggcgccatc 60
 gtgcacgact actactccca cgtcgttcca gccaccatca acttcagctc ccatggagac 120
 tgtcatctgg gcacgggaca tcgagcgcaa tcggatac 158

<210> 10414
 <211> 399
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-F6

<400> 10414

taattaaatt tattcctttg aagtagggaa aaattggctt tacacaaaa ctataaccat 60
 agagctttcc accagccaaa tatgcatata gtatagctgt tgcattccat tactctctat 120
 gtgttacctt gccagcatat tccatgtgct gaccggtttt caggctgcaa cgtaaatgtt 180
 gcagactttt cagacgatga ttaaggagtt tttaggtcgt ggttctatac tcagtgatgc 240
 cgttggagtt gatggactca cttatcttcc aagccttccg ctgttatcgt tattagatgg 300
 gcttaagcca tatttattgt aatcagttct ctcttgagac actccgatgg tataagtgtg 360
 tgattgctac tctgctataa atccttagag tactgtgtg 399

<210> 10415
 <211> 437
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-G1

<400> 10415

gggtcgactt gtgatgttac agttacaatg caagcgcgga gggaagcacc tcctgatctg 60
 cagtgtaagg acaagttcct agttcaaagt gttgcagctg agaatgggtgc agcaactcaa 120
 gatattagtg cagcaatgtt caacaaggag ccaggggaagg ttgttgatga atgcaagctg 180
 cgtgtaattt atgtgccaac atcttcacct agcctgttct ctgaagattc agaacaaggg 240
 agttctgctc gttcattgga aaacgggact cctaattcta cattgccaca atctgtattt 300
 agatcatctg ggtaagcatc aaaggagaag tcctgggagg caacatccat gatttocaag 360
 ctagctgagg agaaaatgtc tgctgttcag cagaaccaga agttgagaca agagctgggt 420

gtcctacgca aagagag

437

<210> 10416
<211> 395
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-G2

<400> 10416

gggtcgacac gagacattct gcaatgcctg tgaagatgac cgagtgttag aatgcgagat 60
tcactaaacc atgtacaagg taatgatttg ggtgcgggat ggattgatca ccataccgac 120
ttactcttat tatttgcctt gctatatggg atggtaaata tgagtgcacat acctatagta 180
gagcgccgac gatcaaaacc ttgtttaagc cttagaatgg tataggaatt tttcccttgt 240
acaaggcagc ttttgccaac cataggttat acggtgagga tcagcccaga cccatttcct 300
ggaggagaag ccataaatgg ttgaccacca tgagatatca agagttgttt agtactgacg 360
ccagaccogt caactaggaa gaccagtcct cggaa 395

<210> 10417
<211> 410
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-G3

<400> 10417

gggtcgacac ccttggggat tctggatcat tggagttatt tatagagcaa agaggtggtg 60
tgggaggcca ccgaggctgg cacaaccac cagggcgcgc ttgggcccc aggcgaccc 120
aggtgggttg tgcccccttg gggcaccct ttggtacttc cttggcccaa cttgtgtctt 180
ctggtccaga aaaaatcacc aaaaagtttc actgtgtttg gactccgttt ggtattgatt 240
gtctgcgaag taaaagacta gcagaggaat agcaactgac actgggcact atgtcaatag 300
gttagtccca aaaaatgata taaagttgct ataaaatgat tggtaaacad ccaagaatga 360
caatataaca acatggaaca atcaggaatt atagatacga tggagacgta 410

<210> 10418
<211> 427
<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-009-Q1-E1-G4

<400> 10418

```
gggtcgacca tgctcttcaa gctgaagctc gagctcttct ccaagcgggtg caaatcacct   60
catcaatggg gtgtaatcag gtgattctag aaatagattc gactgtactg aagaatgcta  120
tcacatcaag cgagtatgat ctagcgccgc taggtattct atctagagaa ataaaagcca  180
tgttatgtgt tactccctcc gtttctaaat atttatcttt ctagacattt caaatgacta  240
acacatacgg atgtatgtag acatatttta gagtgtagat tcactcattt tactccgtat  300
gtagtcactt attaaaattg ccagaataga caagtatttg agaacggaag gagtagtttt  360
aaaggcttta caagatcggg tgtaccaaga tcatgtaaag ttggtactca tgaactagct  420
gcgcgtg                                           427
```

<210> 10419

<211> 439

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-009-Q1-E1-G5

<400> 10419

```
ctcgcgggtc gacacggttc acgacagtgg ctacacttag gtgcattggc atgcttggaa   60
aagggtggatg tgctacaggc tgcgcttggt gcctccatgc atcgtgccac gccgtgccta  120
gtttatgtgc aatatcgctg ggtggcggga aacaggtgag gaaatggcag gaaatagtgg  180
cgtgttcaat taatggcagg aaacaacatc aattaatgga aacatagcat atataaggaa  240
tatcgagcta gcacaagaag tagatgatga tgagatgaac acataccaca ctaaggaacc  300
catcggtgaa gaattcatca atcccaaag gttgtacact agcaagcatt tgcccacaac  360
acacacgggt tatcccatca cagacaggtc agatggatta actgtatgcc atgtatacac  420
attgttcaaa agtaatgca                                           439
```

<210> 10420

<211> 422

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-009-Q1-E1-H2

<400> 10420

cgggtcgacc aaggaaagg tccgcaaccg gtcgtctgtc aagttcggta taacatggaa 60
acttgtgtgg ggccaaagaa ggttttggct ccagcgtgtc tggccatctg ccatggtaca 120
tgatataact gaagttacat cgggtccactg actggacata aaaaagctcg caatggatgt 180
caatcgaggt ccaagtcgtg gtggctcatg tttagagtgt gcgaagagag cccagtcaaa 240
cacctctgca actgcgtggc tatgttccaa cattttgtgt catgcgccat cgccatcgcc 300
atcgccatcc agttgtaaca aactctgtgt ctataataat aatagactgc tttgggacat 360
aataggcgag agctaattca gtagggagag gctaggggtg acgtctttcg tcctttcctt 420
ct 422

<210> 10421

<211> 142

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-H5

<400> 10421

ggtcgacaca actcccgaag atgcttcac taatggcaag gatgggtgcg gccaacgccg 60
ttcgaacgcc ggaagttgca accctatacg ctggagctac aaccggcgac tgggggagct 120
gccggagggg tcgggggttt tt 142

<210> 10422

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-H8

<400> 10422

ttcgcgggtc gacataaaat aataaccttc gccagacggg cacaaccac ccagttgata 60
ccctgctcct ctgaacaaca aaaaaacat cgctcaagaa aaactgtgct cacacctcag 120
aaacaaaaat actgctagat ctgctgggtc ccagttgtcg gccgctcctt gtgcaattct 180
ctcgtttatt gactatatag gttgacgatg gtgtgggacc gtgatgtcag gaaaccagga 240

tgaagcaaaa aaattatagt tgtatataat aaggacgaac ttgcgtacat acggctatgg 300
ccctgggtggg tccctactgt catccttgcc aagtgatctc ctgattcctc atgttcgttg 360
accatgttta aaatgctcgg tgccacggtg agcgcaacaa ctcgaaggac gacgg 415

<210> 10423
<211> 273
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-A3

<400> 10423

tcgacacatc ccactagagt gcgtcgtatt acgggtccct cacaatcatg aagactatga 60
ccgactttat tacctatata tagctctgga aggagcacac ccactccgat agtcgtgtta 120
gcggccctga tctcggggga atgtatcagc agatgcatgc attttcacgc catcatgagg 180
atgcgacagg agcaaccgat attgattaca ccacaccag tagatccagt gaacacttag 240
ctgcagatga ttccaatctt gatctacaga act 273

<210> 10424
<211> 338
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-B12

<400> 10424

gtcgacttcc atcaaagcga tattcatcat atcatcgaaa gacgggacac ctttgctct 60
atcaagtggg atcagatttc cagggtgctc ggtgagattt tacagttttt cgtagtttag 120
atcgagtctg ttcggtcata cctacagtcc acgaagaaag ccacaaagaa aattaggggt 180
agttcatcat atccgaacca atctgagcct ttgcataatc tttttaggat ttttgctttg 240
ttgaatttgc ggttgcacg tcgtgtcaag ttgctggtct tagagtctgg tcataagttg 300
tcacgccgcc gccgcacat cgtcatcgct ttgccatc 338

<210> 10425
<211> 386
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-B2

<400> 10425

tacgcgtcga aattccaggt cgaccgctgc gagaaagacg acataatggg agaacgcaag 60
agaacatgtc tagaaaggct gctggcgagg agccgttgcc agaagaagat ccatccaacc 120
ctatcttcaa gccgcttcct gagccatccc gcttagaggg ttatctcgta accaatcaga 180
tctcgagcta ctgcaaccat atcaatgggg ttgctggcca cagtttcaac aggctatact 240
tgatgaaggc gttgcaggaa gattaggtgc cgggtggcag ctgctgtgag attttaactt 300
gacactgtac cgcacctcaa ttttgcaatg tactccatgt gcacacgcac attgcctatt 360
ttgttttgct caaaaaaac cgaaaa 386

<210> 10426

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-B3

<400> 10426

gcgtgcggac cctacgggtt cgagaactat gtagacatga ccgagacatg tcttatgtca 60
gtaaccaata gcggaacctg gatgctcata ttggttccta catattctac gaagatcttt 120
atcgggtcaaa ctgcataaca acatacgttg ctccctttgt catcggtatg ttacttgccc 180
gagattcgat cgccggtatc tcaataccta gctcaatctc attaccgaca agtctcttta 240
ctcattccgt aatgcatcat cccgtgacta actcattagt cacattgctt gcaacgctta 300
tattgatgtg cattactgag acggcccaga gatacctctc cgacaatcgg agtgacagat 360
cctattcgcg atatatgcca actcaacgaa caccattggg gacacctgtt gagcaccttt 420
at 422

<210> 10427

<211> 298

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-C12

<400> 10427

gtcgacggga ctgtctcctc taactgatag cacatcgccg gaaattttga aataaatcca 60
gaaataatgc aagcaccagg acttgaacac tgggtgggctg gggataccac tgtccctcta 120
accatccaac cacagggttag tttgcattag aaaaagggtt ttgacatata cagaaaatgt 180
agaatgaaaa caaagtagaa ccaagaacat caaaaaatgg gaacacaaca agagacaaga 240
caaacctaac gacaatgaat acaaacaaat gtggaaagaa gaaaaatgga gtgaaaac 298

<210> 10428

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-C3

<400> 10428

tcgacgtcga ccactacaat gtctaccatc tacatcgatc gacgggacac cttggcctct 60
atcaagtggg atcagatttc cagggtgctc ggtgagattt tacagttttt catagccata 120
tactaccacc gggaggacca ccgctgccat ataccagcac cacatatcca ccatcaggct 180
gagttctttg cttattaggt ttgttttcgg gatccatcta aattccgagt cgtgtttcca 240
tgtcggagtc aggtagccac gtcctgttta tgcccaagat ttttcgaaaa cgcatttttc 300
gaacaaattt ctggetatcc tatttttacg tgtgtctgag tgttttgaga cacgtgccac 360
tatatgaagt tttttgtgac ccatttccag ttttt 395

<210> 10429

<211> 381

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-C4

<400> 10429

tgcacccgct tctcgagatc gagtcttagt accactatct gatggatcgt gtgctttgtg 60
ttaggccatt ttttttagaa tcgcgttgga ccacttaact ttgccacaag gatattttgt 120
ttgtaaagat gagtatatca agccattgca tgctatttac atatctagca tctaaatcag 180
gttatcgaca tagttgcatc aatcagacta gcaaatcgtc actctggatg acatcaacat 240
cttatcacag gatttaagcc ccatatggat gccggtatag ccacatgcat tgtcaagact 300

ctgtgtaagg gtgcaaacca aaggatagct aaccgtccat tatccaaagt cctagtatct 360
gtcactagct ctaataacat t 381

<210> 10430
<211> 333
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-C6

<400> 10430

gcacaggtcc tagactcgcg ggtcgacatc agtcggtaaa tcgtctactg gaaacgactc 60
acttgagagt gccaggaagg agatcgccct gtgggtccct gagggcattg cacagtggag 120
gagcagccag cacaactgga tctgtgaggc ggaagatgtg tcatgagtgg tttgagtgca 180
cgtttcatta agcatctacc agactagtct ttgggtgttt acagttttga gatttgtatc 240
ttgggaacct tgtttgtgtg aactgaagtt atctccttgt gcttgagcat gcaagcgta 300
tctgctgctc tacatttgat atatggtatt gag 333

<210> 10431
<211> 356
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-D11

<400> 10431

ggaaatgcaa attcgaagag gcgaacagcg cctatgagga tctcaaccag ggcaagatcg 60
ttggccgagc tgtagttgaa atcatgtagt gctgactgct gacgagatga tcatgtgggt 120
gaaaatctgg gtcaaacaga taagaatatg ccgcggcaac tccgcgaact cggtttgtgt 180
tgcagcacgg tctcgctccc tgatttgtgt tggatgcaaa aaaatttgtt gattgaaaga 240
ttattgtgct cacaaggaga tgtctgtctc agtgtgttct tctttccatg atacatattg 300
tgaatattgg gtatacaatt tgcttatata gttctgcagc cagatttctg ggttct 356

<210> 10432
<211> 450
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-D5

<400> 10432

ctcgtaggtc aacacaactc cctaaagtga gtcctaatat cactgaaaca accatggagt 60
ctgggtccatg ttgtggccga gtaaactctt tgtccctcac ttgtgttgtc aagtgggtgcg 120
gcaggtcggtt gttgggtggac tacataaaag gaaatagtga catacatggtt tctcgtgttc 180
aagcagtttc ttgcaataat tgttatccgt gatataaggc atgcaactga catttggtta 240
atcatggtgg cgtagaaaa ctatttctac gtcttttcca cttctcagt acggctatag 300
gacgaagacc tcatcccttc taggctcacc tgtgcttttt tttttggcga ggtaggcca 360
cctgtgcttt gcatctgcgc tcaccacaac acagatacaa gtaacaggtg accaaatagc 420
aagcagaaaa atccacagt atgccaggcg 450

<210> 10433

<211> 303

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-E1

<400> 10433

tgcacgaaag tccctataat gagtcttgat acctccgccg tcctcgccgt cgcctccaac 60
atcgtcacaa ccatcatccg caaggctcat gcctatatca tggttcatct caacggttca 120
atgcccattgt cattggtagg tactcacgag cctgcaacct aatgcgaact ggattccatc 180
agatggccta acgcttattt ttacaagatg ctgaacgcca gcattgcttc catcctgtag 240
tccaaactgt ccatcccaa gtcccgttc tacctcaagt tccaccattc aaatcgctca 300
tac 303

<210> 10434

<211> 310

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-E2

<400> 10434

tccacacgac aggatgttga tcgcaagcac ctagtacat gcgtcaggga aatgcacccc 60

agtgctcata tctgccaaat ggcgatcgac attaccatgc gtacttgctg acgaaacctt 120
 agccagcgtg agcacgggct cacaactccc tcgtcaatcc tgatctaagg aaccacacct 180
 caggcgcaac atggggccatg cccttaacgt tcactctact ccttcattac tatgtgaacc 240
 cgaacattca gatgcagacg atagttacgg aattcacctc cacatgaatc tgccgcacgc 300
 gttgactcaa 310

<210> 10435
 <211> 122
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-010-Q1-E1-E3
 <400> 10435

tcacacatgc cactaaacga agtcattgca gcatcccgag gggaagtcgg cgtcgcattc 60
 tggaccatcg accttcacg ctgccccgtg gatccccctc gcgattgcct gcaatcttct 120
 cc 122

<210> 10436
 <211> 440
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-010-Q1-E1-E5
 <400> 10436

cacagggtccg agactcgcgg gtcgaccaga gttgcccggc ccgatccaac gcctcggtccg 60
 acggcgctgc cggccggcga tggatatgga gaggagctcg ggtcttcctt gtgtatatta 120
 gggcagcagt agttttagtt tgtcttggt tcatgccgtg gtctggcggt atgccgtggg 180
 gatgcaaacc actggagctc tcgagcggcg tctggtggtg gcctccgctg ttttctttct 240
 tgccaccatg gtggtggaaa gtggaagacg ccggatctgg caagatcccc ttgaataagc 300
 tcgttctggt gttgtggtgt tccctgatct ggagggcatc caactgctac tgcttgtttt 360
 ctcaggctac catggtggtg gatgagaagc aggatagttg cagaatcctg aagtttatag 420
 gtcgagttcg agcatatcag 440

<210> 10437

<211> 343
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-E8

<400> 10437

ctcgcgtggtc gacatgacac actatattga gtcctatgac accgacgacg accaggatgc 60
cgagtttgat gacatggagg attatatcga cgacgcggac tgggacgccg acatgtatga 120
tgatgtgttc gatggctgaa ggagctgtga ctatgaccgg gtccggttct cacgtggaag 180
gaaggacggg aacttgggtgc tgagacaatg tggtcgttac ctgtgtttag attcttgaag 240
ctgggttctc gtacgtctgt taactagtct gctactctct tgctgtgaaa ctgggttcgc 300
tttctctccg cgactgtaat tttatgccgc acctgtgatt tgg 343

<210> 10438
<211> 409
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F1

<400> 10438

cgacgcgttc tttttaattt tttatTTTTT ttttttgcgg aacaggcaac cggaagtggg 60
tcataaattc attcagcatc atccaggaca ttttcccaaa caaaaatgtc aagcttgtcc 120
ctatctgtct caggagaagg agttcctccg cagtaagtaa tcctgttatt gtcttcacaa 180
cacagtggcc acagctgcta ttccaatatt ccaactggca ctactctaac ggtcactagg 240
gagctaaact aaactaccag tacgtactag tttatcccc atggatcggt gggtcgacca 300
tactaatcac accaccagct cccatttcc tcaatcatca gggggaccaa aatgtcctgc 360
cgcattgaaa gttgagacag ctagccgtga ctagaactgc agattacac 409

<210> 10439
<211> 396
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F11

<400> 10439

ctcgcaggtc gacgacatac ccgacattgt gtcccctgat tgagagatca aataccctgt 60
gaacactgtc ggcacgcaca cggatccttc ccctgcttgg gaagaccatt tcagagctct 120
ctagctagta ggactgcacg aggaatttag tgaggatgac tggaagtgcc tctgataagt 180
tcaacagacc cccaaaaaac cttgaaacta actcagactt ctgcggtggg ggtagcgagc 240
tattgaactt cgtaaaccgc cctggtgatg cccttatcct tcccgttctg gatggtagct 300
ccacatcttg cccccctcat gcacctcata tccactgcc tgttgatcag aaaaataaaa 360
acaataatca caagacagaa aactggtctg aaaaat 396

<210> 10440
<211> 225
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F2

<400> 10440

aggtcgacac agatcccaat ggttcacat atcatagcac cctcaciaat gggagcctat 60
acatactcca tccgtcaatc tccctggtgga tgctccatct tggaacgaga ctcccaccac 120
cgctgcctca ggataggatt ccgtgaattt ctttgcacca tgggccacag gagcaggctc 180
aggtactccc ggcgcactct cttcgggagt atagtcacct tttcg 225

<210> 10441
<211> 257
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F6

<400> 10441

ctcccgggtc cacatgaacc acacaagtac gccggacata cccaagttcc gggctctccg 60
cagagataac acccctaatc gtgccgatcg tggtttatac gtggatggta ctagcttgct 120
cctagacttg ttttggggac gaatgaacac attccactgc aaacgatgag ccttcttctt 180
gcatgtgtgt ctgagtgtat gccaaaagtc ctaccgtact ctctccgtac ctgtacgcct 240
cccagggggt tttatac 257

<210> 10442

<211> 345
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-F9

<400> 10442

ggagaaaggt tggaccccgga gcctatztat aaggaaaatg gataaggcag gcgcggggat 60
 cgaggagcct gaagcggcga aagagggcgt agttgtcacc tcgatcttca ggataacatt 120
 aatgaaggga atctttttaa tcattttaga tagagatgag ttcattgataa tccgttgctg 180
 tgtccagagg atgacgtcac ggcagtttaa caaaatttac aggagaagac atcatggtgg 240
 tttacgagaa atataacgag atgttcacat aatttcttta agtattgaag attgacatga 300
 atacgttcaa atcaatttgg agcctaattg tggggatata actac 345

<210> 10443
 <211> 434
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-010-Q1-E1-G3

<400> 10443

gtccactaca tgacaattca ccattatttg ggcctagagg aaggcattgg gaagtaataa 60
 gtagacgatg gggtgctaga gtgacagaag cttaaaccct agtttatgtg ttgcttcgta 120
 aggggctgat ttggatccat atgtttcatg ctatggttag gtttacctta atacttctgt 180
 tgtaattgcg gatgcttgca ataggggtta atcataagtg ggatgcttgt ccaaggaatg 240
 acagtacca agcacgggc caccacata tcanattatc atagtactga acgcgaatca 300
 tatgaacgtg atgaaaacta gcttgacgat aattcccatg tgcctcggg agcgctttcc 360
 tttatataag agtttgtcca ggcttgctct ttgctaaaaa aagattgggc catcttgctt 420
 caacttattt actt 434

<210> 10444
 <211> 422
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-H11

<400> 10444

actcgcggtt cgacgtcaaa cactacgatg acgtcgctat cacatcgtaa gacgggacac 60
ctttgcctct atcaagtggg atcagatttc caggttgctc ggtgagattt tagagttttt 120
cgtagtttag atcgagtctg ttcgtcatac ctagagtcca cgaaaaagcc agaaaaaatt 180
agggtgagtt catcataacc gaagcaatct gagccttgca taaacatttc tgtaattgct 240
ttggtgaatt tgcggttgca tegtcatgtt cagttgctgg tcctagcgtc aaatccttta 300
cagtttcgag ttctgttcac aagttgtcac gccgtcgccg cagcatcatc atcgccctgg 360
catcgaccac caccgctccg aatccgtagc catatgccag catcagtccg tgtccagaaa 420
gc 422

<210> 10445

<211> 420

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-H2

<400> 10445

gtcgacctcc tccagcctcc acccgcgact gttcatccac tggctcctgt tcaccagcc 60
tccatcgctg gctactccat gggctactgt tcaaccagcc ctctccacgg gctagtattc 120
aaccaccctt ccacgggcta ctgttcatcc agccctccac cggctactgc tcaaccagcc 180
ctccacgggg ttgtcctgtt cattcagccc tccacggggg cttgttcate catccgaac 240
cggctcgatc ggggtcttgt tcatccagat gtaacaccac tatgtcctgt tcatccaacc 300
tcaccgggaa ctgttcatcc acccccagc aacgctcatt gttcatccat aggagcatc 360
gatcggcttt agttatcatc agtagcgaag gaatcgctcg atcactcggg ttcagtaacg 420

<210> 10446

<211> 446

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-010-Q1-E1-H4

<400> 10446

caggtccaca tgtggcacag cccaatagag gtccattctt gtgaaaaggc tggcccgttt 60

gacttgggtca aaaggcagag gcctagccca tggaaagcct gttaatggcc tgttcgcata 120
tagcccatTTT acaacccgct aactcatagc ctattacgac ctatccgaat taggcccagt 180
agcgtcatct aggccgtcca atatgattcc agtccattgt aacttccggc ccatgtacgg 240
cccatgacgt cttttggccc atatgtggcc ctttataact cttggcccat taacagccgt 300
gggtgcaacta gcccgtaatg aacagtgtat cgctttatac ccattagtgg cccattattc 360
cattggggcca tttccagccc atgttatctt tcaaccttcg cagggcccat ttattcttgg 420
gttcatttca gcattcgggt tactac 446

<210> 10447
<211> 456
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-011-Q1-E1-C4
<400> 10447

ttcacgggtc cactcacgag gttttagtat tccctacatg attagcataa aaatatattt 60
caaccaacag agtcaccgct catattacgt tgccatgcca taccagacat aaccgtcccc 120
acggagaccg gcgacaaact catgcctacc caaggcagag gttttcctgg gttcctgccg 180
gtatgcatgt aaggcacatg aggatgatta taatcacaag tatgatcatt tccaacagca 240
tggaatcac taacatgcac ccatgcatat gatcatatca catgaaataa caagattctc 300
caaagtgagg tgatgttata aatgtgtcat caaacacaca aaaatattat gccgggggttc 360
agaatggttg ccttcaggtc atggaaaggc anggtgcatt tcaaactctt gaaatacttc 420
tcctctcttc anaaaatcct atttttgaaa atataa 456

<210> 10448
<211> 127
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-011-Q1-E1-C7
<400> 10448

ctttcaacat tgcagcgttt taactctggg caagtcctg atgttgatcg ctaccaatgt 60

gtacaatcgt gagctggata tcgaaactgt tcatcttggt atcaactatc acatcccagg 120
gtttcca 127

<210> 10449
<211> 278
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-E7

<400> 10449

ccgtcattaa caatccagta gtcgcgagca gcgctcctgt cacaccacg atgcggggtat 60
atccccacg tgtcgatgca ccacttagat gcataaccgc attgggggtg ttacaacttg 120
gtaatcacag ccatccccga cttatgaccc ccccgcttga tcgaatcact gacgttggtg 180
agtccagaac caaatgcctt gagtcttaag attatacata tccgccagta cgactctttt 240
tactcctcat tcccttcgc gccctggcg acgcccc 278

<210> 10450
<211> 330
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-F8

<400> 10450

ctctacgata gattgagcgg aaagaatagc ttcattgtat ttactacga actcttcaat 60
agatagatca aaacggataa ctttgaggtg gtttcgtagg ctaccataat ctattcgttt 120
gttctccgct attaattgtct ctggagtac tctttgttgc atgttgaggg attgttatat 180
gatctatcta tgttattatt gttgagagaa cttgcactac tgaaagtatg aaccctaggc 240
cttgtttcct atcattgcaa taccgtttat gctcactttt atcgcttgct accttgctgc 300
ctttataatt tcagattaca aataccttta 330

<210> 10451
<211> 438
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-G8

<400> 10451

attccccgggc catggattat acgcactctc acccttccat cattgctagc ctcttcggta 60
ccgtgcattg ccctttctca cctcgagagt tgggtgcaaac ttcgctggtg catctaaacc 120
ccgtgatacg atacgctcta tcacacataa gcctccttat atcttcctca aaacagccac 180
catacctacc tatcatggca tttccgtagc cattccgaga tatattgcca tgcgacttcc 240
atcatcatca tatacatgac ttgagcattt attgtcatat tgctttgcat gatcgcaata 300
tagctagcat gatgttttca cggcttgtcc tttttttatg tcattgctat gctggatcat 360
cgcacatccc ggtacaccgt cggaggcatt catatagagt catatctttg ttctagtatc 420
gagttgtaat attgagtt 438

<210> 10452

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-011-Q1-E1-H8

<400> 10452

tgactgtgag gagtgtctga gacacgtgca cagcttcacc ggtgtcagtt ttacaggggg 60
taccacaatg ggggaggcgg cgtctctata taccgctat ctctcgcgag aggggagaga 120
gcgttttggg agccgcatgt ggacaagttt caccgcatg atgctcaccg cgatgagcac 180
agatctcttc tctgtgttgg tatattatat gatctatctc tacttgtgtt gtgtggacac 240
actcactaca ctcggtctcg agacatgtgt tataatgtgc tatctctgtg ctctctctta 300
aatctcagac tcttataatg agttgtgttc tcagactctt atgaggagtt gtattcacag 360
actaaactcc tatagtgttc tatgagtctc tggttgatgt gtgcggtct 409

<210> 10453

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-B6

<400> 10453

tgcaactaca tcaatcgatt ctcttcgtct ttgggtggtct gcaccttccg tgccggctgt 60

ggaagacgga tgacgcagtg ctgttatggc gctgacaggc agctgttcta cttcggctct 120
 ccgaggcaat ctttcatggc acatgcaatt gaaggtatgg actacaagag tacagactgt 180
 tatatatctg gaaggcgaaa ttttggggct gtatctgatt attgaatgac agacagttat 240
 atacgagata agattcctag gtttgccatg acatataaga ttgtggcaag gccgtgctcg 300
 ttttagagga catgggatac atacaggaag cagctgaaat tgatggttggc aagtctggta 360
 tttagaagat atctcatgaa gtcattcatc aaacgtttgc gaacaaacca tttgtcatcc 420
 tggacatg 428

<210> 10454
 <211> 411
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-C8

<400> 10454

cctacaacac gctgaagatg cctggggccga tgaccgtcgt caccgtcccc tgcgacaaga 60
 aggatgcgtt gatctgcgcc gacctactca accaataggt caaataccag atattcaaca 120
 tgtccataac cagggacacg actaatcata attagtttat acactctgca gaggtttgcg 180
 ctcttttccc cacaagattc gatctcccc gttgaatttc tcgcaactgcc tgatgtttga 240
 gaaatggatg atcgagacac agtctttcta aagagggtccc cttaaccgat agataggccg 300
 gtacacctac aatcccctac atctgctagc ctatcatgga aagggtttccc acaacttact 360
 caactatgcc agagcccata atggcttgtg gctgcacacg gaagtttcta g 411

<210> 10455
 <211> 391
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-012-Q1-E1-D1

<400> 10455

gttgcagcgt cttctgaaaa aaaatgtaaa ttatagcaac atgagtacaa aggtacccag 60
 caagacttac atcagatcct acatacatgc atattatcaa gaagggttgg tggagttgtt 120
 gcagcaagcc agctttgact cttggctagg ccaacctacg agactccaac ttgaaatggt 180

tttgcgtaca cgagtccact actcaccact tcaatacact accgaggatc cgcctccgtc 240
 ttcctacgga agagccatcc tcggcactca cacttatctt gaggctttta gtagtttcca 300
 tttacttgtc tatgaactgt ataggcaacc aagtagtcct ttaccgcgga cgcggtatt 360
 cgaatagatc atgataaccc tgcanggggc a 391

<210> 10456
 <211> 413
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-012-Q1-E1-D6
 <400> 10456

accgaggttt tggaattacc cttttaactc aatcaccagc ttctgccctt tgggtggagtt 60
 catatggtgg ggctcaacat gctatctgga ggagcttggg ctacggaaat ggtacgcaga 120
 agaaaccctc ccatacagaa cttgttgctg tgcaagcaac agctggaaca attgctggag 180
 cttgctcatc gattatcact acaccaatag ataccatcaa gaccgggctt caggtaatgg 240
 acaactatgg cagtggaagg ccatccgtca tgaagactac caggctgcta ctgcgagaag 300
 aaggctggag aggtttatac cgagggtttg gaccacgctt tcttaacatg tctctgtggg 360
 gtacatcaat gattgtcaca tacgagctaa taaaagact ttctgtgaaa cct 413

<210> 10457
 <211> 358
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-012-Q1-E1-E3
 <400> 10457

ggagctgcct cgcctccatg agaaagtccg cagcagcatg ttcttctgct gagccagcca 60
 gccagccgca cttgcgcggt ccaacttttg gcgatgcgct tggttatcta gtactagtag 120
 tatgtagtag tggcctgtga tggcctgttg gactcctggg atgttggtgt cctaagctgg 180
 ttgccgcact tggtgccctca gaacctttac tatcgaacca tctaatttgc tgcaaaaaaa 240
 aaaaaaaaaa aggaaacgaa aaagatcggg aagaagaaca gaagagctaa aaagagggga 300
 agcgggagga gagagacggg caggggagga ggcgcagggg cggtaggggg gggatatgg 358

<210> 10458
 <211> 398
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-F7

<400> 10458

tggttcggcc ctcgtaatac catgaccatt agtcacctggc ccatgccaac tttcaacttt 60
 caactttcta aaactaatgg cactaacaga aagtttataa ttttgctccg cggccctggc 120
 ccatgaccat tagtcctggg ttgtgccaca aaccgggact aaagggttgg tccttggtgc 180
 gggcagagtt tagtcccacc tcgccaaccg aagggggctc acaccagttt ataagccctt 240
 ccctctctgc ctcattgagc tcctctcaaa gtgaaaatag atgccctaata agagaaaagt 300
 ttaacctaaa ttcatagtga atttctctga aattcataga aatttactag gaatttaggt 360
 tgaattttct ctataaacgc atccattcgc attttttt 398

<210> 10459
 <211> 429
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-012-Q1-E1-F8

<400> 10459

gcggttcgac agtaccatcg aaaatatcga tatttgcttt ttgaaccaa atgttttctt 60
 aggaatcctt ttgtatgaat tgctcgaaaa gtttttgtgg gcgatttgtg gtctaccttc 120
 agagactgct cgcagacgag agctcatgta tgaggcccggt gggcgtcaaa cagggagtct 180
 tagctggaaa cccggttggt gtttttttagg agctacatat ttttataacc tgtaaaaaat 240
 agaaaaatat atatttttta aaaaaaattg ttccttatgt gttatctcat aatatataaa 300
 cgttcggtgt atataaaaag ttcaatgtat aataaaaaag ttcggagtgt tataaaaaatg 360
 ttccatataa ttgagaaaag ttcaccttat attaaaaatg ctcaatgtac ataaaagcgt 420
 aaaatgttc 429

<210> 10460
 <211> 116

<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-A1

<400> 10460

gtccacgtcc accacctaga aaaccaccat ctcatctaaa tactggacac ctttgccctc 60
atcaagtgtc actatatttc cacgttgctc ggtcagatct tacacttttt cgtacc 116

<210> 10461
<211> 402
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-A10

<400> 10461

taccggctct acattccggg gccacgtgc acctcgtact ccgcctccgc gggggcatca 60
tcgagccctc gctccaggcc ctgcccgcga agtacaacca ggagaagatg atctgccgca 120
agtgtacgc caggctgcat ccaagggctg tcaactgccg caagaagaag tgtggccaca 180
gcaaccagct gaggcccaag aagaagatca agaactagag ctgtaagac tgtcatcgcc 240
gctttcgttg tctgggtaaa tcagtagaca taaaatgttt tccgggtatc gttttgctgc 300
ccctcatgtc aggatgttga accttggta actctagctg agtacttgcc tcgttttaat 360
gtcagaactg aagtgaacct tggcaaaaaa aaataagagc gg 402

<210> 10462
<211> 402
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-A11

<400> 10462

tcattgggtcc acgtgcctcg atatattgag tcgtattatt acattgcgct accatggaaa 60
attctcatca agaggccata gacaacggct tgttgtcttg gaaggacttg ttctacaaga 120
atacaagaat gggcagaagc aacaaacaac cgtagccgtg caagtaaatg atgcaaatga 180
aagtaatgaa ttaacagaat ctaagcacia tgattatctg gttgcctccc gtattcaaat 240
tatctatcca catacaagac tatttattat aattgcaatg acaattacgc caaactatac 300

catttgtggt gtgttattca aaaaactgtg aaccggtcta ttggaactac attacttatg 360
catggtgaat gtaaatacatg gcaccacaca tctatcatcc ta 402

<210> 10463
<211> 364
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-013-Q1-E1-A12
<400> 10463

cacatttccc tagaatgcg cgttcaatcc ttgaaacat cctttttctg ctcctgtagt 60
ggccaacgct ttcctccaca cattggtcaa tctgcatgga ccccccacaca ccattgtgtc 120
tgatggagac aggatattca ctactcattt ttggagagat ttgttcaaac tgcgggacac 180
taagttgctc atgagtactg cttatcatcc tcaaaccgat ggacggagtg agcgggtgaa 240
ccggtgtttg gagatgttcc tcacgtgtgc agttcatgat acccctacta agtggcatgc 300
gtggctgccc ttggcataat tctggtacaa tacacattat cactcatctc tggagtgtc 360
tccc 364

<210> 10464
<211> 442
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-013-Q1-E1-A2
<400> 10464

gggtcgacca ggctgagaaa atgggacttg actacatgga tgttgaaagt ctcaagaaga 60
tgaacaagaa caagaagctt gttaagaagc tagccaagaa gtaccatgct ttcttggcat 120
cagaggccat aagcaagcag atccctcgtc tccttggccc tggctctaac aaggcgggca 180
agtttccac tctggttagt caccaggaat ctcttgaagc caaggtcaac gagacaaaag 240
ctacagtcaa gttccagcta aagaaggttc ttgcatggg tgttgctgtg ggcaacttgt 300
cgatggacga gaagcagatc caacataaca tccaaatgag tgtaacttc cttgtgtccc 360
tcctgaagaa gaaatggcag aatgtgaggt gcctgtacgt gaagagcanc atggggaagc 420

gtgtacgggt gttctaagtg tg

442

<210> 10465
<211> 162
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-A5

<400> 10465

ataggatccg tctcttggga gccagggaca ggtgcagaac gggaaggcgc catgggaatg 60
ggtgcgggag cgctgccgga aagagtgggg gatctggggg ggcgacgac cccgacgccg 120
acaacgcgtg agaggacatg atgggcgtca ccgctcccaa cc 162

<210> 10466
<211> 292
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-A6

<400> 10466

gaccaaaggg atgactcaac ataaaagtaa agagataagc ccttcgcaga tggaatcagg 60
gatttgatg ggtgctcgac ctgattata aaattgatat tgagtattat gtgggggggc 120
aaacttttat tgtcagtaca atgacgggta gatggccgta tcggctacaa ttttggcggt 180
attacatgtt tgcttgagct tggtaaggt tcattttctc caatcagcat caagcataaa 240
tccatggctt tccaaaaga tcgaggttta cttacacatg acagccccgt gg 292

<210> 10467
<211> 332
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-A9

<400> 10467

gctgtcttgg ctgacatgga ttctattgga catgaagcac agctaagacg ttttgaactt 60
gccaaagctg ttactcttgt tgctgaacct ttcacactac aaaatgggtg cctcaggctc 120
acgtccaagg tcaaaagacc gcgagctaac gcctacgtca cgaaagagct cgcacatatg 180

tatacataac tccgtgacac ccaatcagct acgcacacgt tgttctact ctacaaatgt 240
 tcacgactac gggtcacacc tctccaggac aggctcacac cactcagcac cgatctctca 300
 tctgccttct cctcttgact actcttcacc cc 332

<210> 10468
 <211> 66
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-B1

<400> 10468

ctcatccgta tgatcacgat cgtccgaaac gccacacgac acgagctctc catcaacgta 60
 atcggtt 66

<210> 10469
 <211> 316
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-B10

<400> 10469

tcccctatat cgactcggac tacgttcacc tcgtcaagct ctgccacaat ctcgctctaa 60
 aagggttcaa catgtggaca ttctggcaga catcggattc gtogtcatga ggctacggag 120
 ggttcttcgt caaatcctc ttcatcgta tcaacaatca tcatcgaccg gtccggatga 180
 tcacgtcttc gcagatttca ggacccttta tgaaaggaag gtgtacactc aatttagccg 240
 ttcagggttat cttaatctca gtccttaaag gaattcattt atgatttcaa tgtatacgac 300
 agttcccttg tgtttt 316

<210> 10470
 <211> 341
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-B11

<400> 10470

acggtacgta cttcacgggg tcacagacga cagaagagga ttcaatggat gaggggcagc 60

tttggattga tatcaagaat ggaaagcaat ttgattaccc aagattactt ttcattatca 120
caggtaaagg gcctgataga aataaagggg atgagcaa ataaaaagggtta aaactcagac 180
gtgttgccctt ccggactatg tggcttgcat cggaggacta tcctctattg ctaggatcag 240
ctgatctagg cgtttcgctg catacatcct cgtcggcgct tgatctacct atgaaggctg 300
ttgatacgtt tggatgtgga ctaccagttt gcgccgcttc a 341

<210> 10471

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-B2

<400> 10471

gggtccacac gaaccactaa gtgcatgatt ctatgcacaa cgctctctct atctaccgcg 60
agggttggca actctgcgtc aacgacggct aagcaccggc tcttcgagga tttgcagggtg 120
ctgacacatt gggccaacac catgataatg gcaactctgc ctcgttaatg tcggccacca 180
acgatgataa ggccaaaccg ccccatatgg ccattgacct cacctccaac gggaggaata 240
gattaggttt tcagttgttt ttaggggttt ctttgttatg tataaattac ttcgaaatga 300
ttgaaaaatc ggtgtccacc ttatttgatc actctggttg gatgggctcc gccagctgg 360
ctatccacaa acatgtccga caattttttt gaaggcgtag ttatttgtat tcaagcaagc 420
ggcaaacc aa tacatgtaca attacaaata ca 452

<210> 10472

<211> 258

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-B8

<400> 10472

catgccaaac taaacgtggt gctcatcgcc ctcaacatct ctgccgggtgc cgcccgatgat 60
gtcgatgagg acgactagt atgagcggtt ttgtccaccc cagtgtacta ttgcaccggg 120
cggttttgtt gacgtctggc accctgccca gcgggcctgt tcctttgagt tttggttatc 180
tctcttgagt tatacattgt gtcttctgga ttatgtgccg tgctggcatt tggatcttac 240

tcttaatcct tgtgcaaa

258

<210> 10473
<211> 157
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-B9

<400> 10473

tcacggggtc acgcaatcga tgatatagac ctctacaagg tcaagccatt ggacctcccg 60
gcaagggtcg gcctccgcag cctcgactcc cagtgggtact tcttcagccg cctcgatcgc 120
aagcatgccca accgcggggt cagcaactgc tccactg 157

<210> 10474
<211> 270
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-C1

<400> 10474

ctcaggttga atctgaccc tcccatggtt atgaaactga aactggttg gcacatctta 60
ctaagttgaa tgatatagcc acccttttta ctgatgatga gaaaacgggc gaggacttta 120
ttctcaaatt atttcctttc gcattacagg gtgatgctaa agcttgggac aatactcttg 180
ctcctggttg tgtgcgtagt cccagagata tgatttacta cttctctgaa aaatattttc 240
ctgctcatat gagacaagct gccttacagg 270

<210> 10475
<211> 200
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-C11

<400> 10475

cacgggggtca cgatctggtt tttatttggt aggaaccgtg tccagaattg tctggccgat 60
tcgactagct gctgaattat ctggcttaag tcgtcagtat ccggcgggtcg cacgtaagtg 120
ccttggaat tcgggagaaa tgccgcgtct agtccttcc atgagggggt tgactttgcc 180

ggcacgctac tttgccagt

200

<210> 10476

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-C2

<400> 10476

gggtccaggc atcacacgaa acttctgcct aataagtgga tgacatctgt cccaacgatg 60
agccgacacg tatttcctcc agccaatgat gattttacac gtggaaaatc cccattggtc 120
ggggctgtta acggtttatc ggatccaaaa cccgaccga tagcttaacg acgttccatt 180
acggtggatg ccacgtgtcg gtcacccttg acgaaatcac tttgtgaca cgcgatttat 240
cgatcatggaa gtgcacactt ctgtgatgat aattttggta aagtcatgga acacttctac 300
gatagcacag gtatgactat cttgattctg tcataaaatc gtcattggatg tacatgcatg 360
acaaaaaac ggcacctact gtgacaaaca cgtatcatca cggaagtgta tttttttgta 420
gtgattgtcc 430

<210> 10477

<211> 355

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-C3

<400> 10477

cttgatgga tggacatatt gctagcctac tccagtcac gctacaatcg gctgttacag 60
cagtatgtta ctttcctatg atatcatgat ggcttgctta tattactctc aacatttagt 120
ggggaaatat tcatgctcat aacatgcttt tcttaatat gactccaact tgatgatgag 180
ttgtatgcct cttggtgccc ctacccttcc taatcccaga acctttcaaa gtaaagtggc 240
atggcagttg caggtgggta ctggctcgat cagacaacgg ctaacgattg atgatcttcc 300
tcagctaccg gacgtgttgt ttgcggaat acaatcatat tcactggata ggtct 355

<210> 10478

<211> 456

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-013-Q1-E1-C6

<400> 10478

```
attcgccggt cgacataaca aacaaacgat ggtgatatct tccatgctac acacattata   60
ggcgggttccc aaacagaatg gtaaagttaa tactccccct ccaccaacaa gcatcaatcc  120
atggcttgct cgagacaacg agtgcctcca actaacaaca gtcccagggg gggttttggt  180
tgcaattatt ttggtttgat ttgcataaag catgggattg ggcattcccg tgaccagcca  240
ttttctcgtg agtgaggagc ggagtccact cctcttgaga ataacccgca taacatggaa  300
gatacggata gccctaattg atacatgagc tatttgagca tacaagacag aatttcattt  360
gaaggtttaa agtttgggac atacaaatth acttgggaac gtaggtagat actgcagata  420
ggaaggtata gtggactcat atggaataac tttggg                               456
```

<210> 10479

<211> 439

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-013-Q1-E1-C8

<400> 10479

```
cagcaacatt gaaaaatctg cagccgagc cagtgaagcg aagaaagaaa tcggcaaagc   60
gtccaagact cagaagtcaa attcatcctt gctttgcctg cttatggtga tctttggggt  120
tgttttgctt atcgtgataa tagttttggc atcttgagac acggatgctt agaggcctat  180
tggtgcccctc tgaggagcca tattacgtgc aagattaatc ctcgctgtgc gccgaagact  240
gtcgctaact gaagtgtaca ttttcttttt ctctcttctt ttttccttgt ggtttgtagag  300
tgcgtattct tgtgtggcgc gagtcctttt tttccacgg cttgccctga ctgaacagtc  360
atgctctttt tcacctacaa aggtttggtt gctgctttgc ttgagtcaga aacttgacat  420
tctgtaagta tttccactg                               439
```

<210> 10480

<211> 299

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-013-Q1-E1-C9

<400> 10480

cggtccatta ttcacggggt cacgtaatca cggtcatctc agccgggctag ttcattccgca 60
agcatctggg gcgccagtct ggggtccaagg cagcgatcgc ttttaagcatt cttattccaa 120
gcactgcaaa gtattcacac tgcacggggg ttcgtcagac gttcacattg cacagttcgg 180
ggagcttaat ccggacctgc tgttctctgc aagtccacta cgagaagcac aagtctatgt 240
gctacaggct ccatgtctat gtcctccctt tcttcagggt ctatagggga gctcagggc 299

<210> 10481

<211> 312

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-D1

<400> 10481

ctccgagggga agtactgcgt gtgcttcgat ccgctggacg gtcctccaa catcgactgc 60
ggcgtctcca tcgggaccat ctttgggatc tacatgatca aagacaatga caaggggact 120
ctggaggaca tgctgcaacc cgggactgac atgatccccg ctggccaccg catgtccacg 180
acctcatgca cgctgtgtg tagcaccggg aaccgggtgtg catggcatca ctcttcatcg 240
ttcccttagg gactccatac ttacgcaacc caacataaag atcccaggca aggggaaact 300
ctattcggtc aa 312

<210> 10482

<211> 323

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-D11

<400> 10482

taccggctct tcattcacgg gttcgaccgt gtatataaag ggatgaccgg gcggcggctt 60
agggcaagaa acaacagatt gagagccagg caaagcgtat ttgctccctg gtaatcgaaa 120
ccctagcaat accacctcaa actggactag gccttcacct tcaccgcaag gggccgaacc 180
aatataaact cctcgtgtcc tttgtcccggt ttaaccctt taagctaacc tcgttgtaat 240

ggctccacaa ctaagtcctt ccatgaggac atctgccgtg acacttccac ggcaacttca 300
atgcacatgt tatgaaacaa ttg 323

<210> 10483
<211> 425
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-D2

<400> 10483

gcatgcatgt gtgctgctag ctcttgatgg atggtcactc gatttcagct gccattgtgc 60
atcaccatct cctggatgcc ttgatatctg tgttgctttg ttgatggttg tgtagctctt 120
gacataatcg gctactgtta acaacttgaa ccagtaataa tctgcttgat gatagaaacc 180
ttcttggtcc ttcagaataa cagagctaag tgcaggggcc atttttctga acgaaacact 240
ggattcaatt aagagaaaaa ggaaacactg gatttctcca ccataaggca agcataaaaa 300
gatgtctaatt ttggtaattt tcaacgcctt acaagttact gtacttgaat aaccagaaag 360
gaatatatgt tcttttacag gtccagtgtg gtccttcat tcaggggaca cagagtgcag 420
agtct 425

<210> 10484
<211> 256
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-D5

<400> 10484

gtccacaatc acatggaatg gtgattcatg aaacccatgg tatgatgtgt aaacacagtc 60
ccccctggcg aatggaagta gcataactcg gtaatcatcg ccggtgatat gatcgatgat 120
tggttgatg ctcgataat tgagcccag gaacatggag tggttgccga cgctgtaaac 180
ccgctccaa ttgaatacgc ctggccaaac aaagctggga tctttctcga acacgaagca 240
gccagagccg tcaatg 256

<210> 10485
<211> 400
<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-D6

<400> 10485

gacgttcttg agcattttcg gttcaactgt cttgttgacag gtgtgcatgg tggtcgctcg 60
tggtgttggg tcctattgtc gtggcgtttt tgctgtctgc gtcttgttgc tgctcgttgg 120
gggggggggtt ttgcctcgtg ggtcttgttg ctgggggtctg ggggtgctggg gtttcgcgtc 180
tggtgtcttg ttgccgttgc gttccgggcg tcgtgttttg ctgtttcggg cttgttgccg 240
cgtgttgggg aagaggagat ttttgtcaca tggctcttgt tgcagaagag ttacacgaga 300
agaggtttca cagcaggaac attgctgcaa gaaattagag aacaggaatg gtccgctcgc 360
ctcctacaat ctgacagctc acgaggcagc ggggtctttt 400

<210> 10486

<211> 218

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-E10

<400> 10486

cctagggttt atggaatatt ggggtattta tagagcaaat acgcggtgct ggacgcacct 60
atgtgggcat aaccacactg tgcgcgcctc ggcccccagg tgcgccctgg tggttcctgc 120
gggccttggg gcatccctct ctccctctt cagggcatct tgtgtcttct ggtccactat 180
ctaaccacac ctagttttgc tgcttttcga ctcccttt 218

<210> 10487

<211> 394

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-E5

<400> 10487

acacgagcaa ataagatatg tcgtatttgc tcgtcaggac cactgcacaa atattcgctt 60
cgccggatga gatgggtgag ctgatgacta aaatggaaga ttttacgcac cgagggtggg 120
tctgcgatca ctccatagtg ttctgagggg gattcaattc agcactagac agccaaaagg 180

aagacacaat aagctggcca agctcatatg catgcacctc tgccaactga accatctaata 240
acctcaccgg agtatgtaat gctatctacg ctgatgaatg aattatctgg tgcattatgg 300
ttagcaacat ggcattgctgt tctgttttcc ctcatgatac cggctgtcca gtaacttgct 360
tttaactgaa cttctattgg attgtcttag ctta 394

<210> 10488
<211> 408
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-013-Q1-E1-E6
<400> 10488

atgtctggca cgcgttgtgt gtgattcctg cttctgcctc gttgcgggtg gctgcctgcg 60
cgttggcggc ggctgtgccg cttgtcctgc tctcgcgtgc cgggggtggc gcggcgcccc 120
tgtccctgtc tggcctgggt ttcgcccgcc tgcgcctggc ccttgtggct ggctgctgg 180
gccgcgtcct gggcttctca gtcaactgcc ctggcaccac tgcagctgac ctgatggaca 240
tgggtgctgat caccagtagc ttgccaacta tgacagaagt tggcgcgtcc tccaagtcct 300
cggcgggtgt catcccccat ggcctgggt ctgtgctcga catcgccacc agatccgcat 360
tgtcttcttc acggccagtc tgcctctgac aactaagcac ctttgctt 408

<210> 10489
<211> 66
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-013-Q1-E1-E8
<400> 10489

tgtgctttct ggtcgtcctg ctgtggcgct gcctggttct ctggtgtgcc cttcttctg 60
tgctct 66

<210> 10490
<211> 245
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-013-Q1-E1-F11

<400> 10490

accggtccac gactccgggg tcacaactgc gccatcagcc gcactcacat catggacctc 60

tgcacgcagt gccaggcgaa ccatgccagc gccaccagcg aggagtgcac cgtggcttgg 120

ggagtttgca accatgcatt ccacttctgc ggcatcaccg gttggcacat gacacgtcac 180

gtgtgccatc tccactacag cgagtgggag ttccatacgt acggtgactc acatcggtat 240

ggcca 245

<210> 10491

<211> 199

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-F4

<400> 10491

ggtggtggtg gtgccatttt cctattatac ataagcattg attggataga gttaattaaa 60

catcaatatt tgttctaacg caagcattca tcagatagag acaaaacatc ggatagaggg 120

aaacataaat cgtccagaat aagaatatct ttctggctaa gcttacttac gaatgttggt 180

gattaaaaca ttatacatg 199

<210> 10492

<211> 157

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-F5

<400> 10492

gattgggccg gggatttttc tcatggtaca acgtaatcac cttaatttgc tatatatcca 60

ttcatcactt aacgcaatcc ctccgtcact gttaatcaat aggggggggat cgctgttgca 120

tcatttttgt tctagcttat tcttgactgt ttcattc 157

<210> 10493

<211> 441

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-013-Q1-E1-F6

<400> 10493

ccatccaaca caaanccaca gtaactcatg ccattttaag tgatataaaa actattcgct 60
aattttcagt aaacccttg ttcttttgct taataaacc acagttctat ttttaaggga 120
gtttaagac tttttaaaat actagcaagg cgacccatgc gtcgcaactg aagaaaaaaa 180
aatcataatc tctaattggtc atgaccacat tttgctgcat caccgagata cactatcact 240
ttcatTTTTcg tgaaatcgtg aacagttttt gacaatcatg aacatttttt tagctgagga 300
acatatctgg aatcgtgaac attttccagg tacgtgaaca attttagaaa agtgcaaact 360
ttgtccagag tcataaacgt gttaggaatt catgagcatt ttatactagt tgcagaaggt 420
gggggattat gaacattttt t 441

<210> 10494

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-F7

<400> 10494

cggcggaaaa gaagaggcga tggcgtccgg gtggggcatc aacgggaaca aggggcggtg 60
ctacgacttc tggtcggact tcagctcgtg catgagccgc tgccgccagc cctccgagtg 120
cgggctcctc cgcgaggact acctcgagtg cctccaccac tccaaggagt tccaacgcag 180
gaacaggatc tacaaggagg agcaacgtca gataagagct gctgctcgca aggccaagga 240
ggaagccgaa ggagctcctg ctgttgacgc tcaccactag catccctttt caattttttt 300
cttatgcttt tgtttgttgc aagcgcttcc atgttcggct atgagcaagg caataattac 360
ctaaacattg caccctcgca cctccatgac ttgttctaaa agcatggatt tgatagacta 420
ccttggtcat caaatttgtg c 441

<210> 10495

<211> 151

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-G1

<400> 10495

tttcgtgggt tcagccgccc cttctctggc tcgttcccggt gttctctctc ctttcgggct 60
 tcgtcgtcgg gtttgcttcg ttctttgtgc tctgctgtcc ggggcggggg ccggcggttct 120
 ttctttgcct cccgggggggt gggttccttct t 151

<210> 10496
 <211> 313
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-013-Q1-E1-G10
 <400> 10496

cgaagacgac agtacggatc atacagacta tatacagaag ttgatgccgg actatcatcc 60
 atccacagta tgggtggagaa cccaccttgc aaagccgaag acttatatcc gcatactata 120
 tcaggggtga aggcaacttc gggggctact gagggagtc tacattcggg ggtcctcaag 180
 tgtccgtccc atgagtatcg gccagggttg atgggtcata cactatcaag ctgaagacta 240
 tccttcgtgt ccatgtggga cctctccata cgtaaaactac aagattagag tccagatgta 300
 tcatttcctt ccc 313

<210> 10497
 <211> 187
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-013-Q1-E1-G12
 <400> 10497

tctacatcta aagacggtag acctttgcct ctatcacatt gcatcatcat ttctaggttg 60
 ctctgttaca ttttacaatt tttcctactt tacatctatt cggggcttca gacctatact 120
 ctactaaaat actatgggtca attctcttag ttcatcacat cctactcaat ctaatccttt 180
 caatttt 187

<210> 10498
 <211> 139
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-013-Q1-E1-G2

<400> 10498

ttccgctcctg ggtgcccgtc ctgtcgctg ggctgggggt tttgttggtc tttttggtct 60
gtggcctctc ggggcgtgtg tgtgtcctgt cctctggcgt gcggcgtgtt ttggctcctt 120
gctggtttcc gcttgttgc 139

<210> 10499

<211> 169

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-G3

<400> 10499

ccccatcatc actatgtcag tcctgtgcat cgttgccttc actaatatct acaatctctg 60
tcaccactt gttgctgctc gattcttggg acggggatct gtcgatctcg aaaacattag 120
tgtcgtctca ttacttacc cctcttatac atatccttct ggttttgtt 169

<210> 10500

<211> 203

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-G4

<400> 10500

ctctcccgct tgctccgcgc tggccccccg tgctgtcgtg ctctgcgtg cccttcgcgc 60
gcgcgcgtcg tctgttttct tctcgcgggc gtgggcgtg cggctttggg gtgggggcgc 120
tttctccgtt gggtttgcg tggcgcccc ttccctcggg tgcccgttgt ttcttcgcgt 180
ctcgtccttg ggtttctttt ttc 203

<210> 10501

<211> 90

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-G6

<400> 10501

tctgtgtttg ctgtgttctc ctggtgtgtt ctctctcttc tcctgttgtc ctcttctcgc 60

ttggcctggt tgtttgtttg ttctcgttct

90

<210> 10502

<211> 280

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-G7

<400> 10502

tgtggctttt ggctgcttct gcggcctgcg gcctgccgtc tggcgtgcgg ccgctggtcg 60

tcgtgtgtcg gctcgttccg ttcgttgttt gggcttctct tcgggggtcg ggtgtcggtc 120

ttgccgtgt tctgtggggg ttctgcgcc ttctttcggg tgctttcgtg gcgcgtctgt 180

cgctgtgctg ctgcgtgttc tgtgtgctct tgttcctggc tgtcttgtgg tctcctgttt 240

gctggtttgg cgcgttttct tctgtctgtg tgctgctcgg 280

<210> 10503

<211> 325

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-G9

<400> 10503

tcacggggtc acgacggact gaacactgcc cctcctcacc ttcattgagcg gacgggggta 60

catccggctc tgtaaccatc ggtgatgata gaaatccact gttttttgaa cggagagata 120

aactgttact accccggggc ttttttagat cttggagacg ataagagtgt gtgaatagag 180

caaccctagc aagcaagcgc ggatgctccg ggctatatat acataatggg gtagttttcc 240

tttttcactc catcaaaaca aatcgtttac aattgtgtac tactacatgc cacgtccgtg 300

gttttttttag atgttgattg ctttt 325

<210> 10504

<211> 413

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-H11

<400> 10504

cagggtccgta gactcacggg tgcacgcaga gttaaatact ttggctgaat ctgacccccc 60
ccatgggttat gaaactgaaa ctgttggtggc acatcttact aagttgaatg atatagccac 120
cctttttttac tcatgacaag aaaactcgct attactttat ctaaaattag ttcctttctc 180
attaatgggt gatgctaaag cttggtacaa tactcttact cctgggttg tgcgtagtcc 240
ccgggatgtg atttattact tctctagaaa atagtttctt gctcataaga aacaagcttc 300
cttgcataaa atatttaact ttgttcaaac taaaaaagag agtctcccaa aagcttgggg 360
gaggcttcgc cagttactta atgctttgcc ggattatcct cttaagaaaa atg 413

<210> 10505
<211> 330
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-013-Q1-E1-H12
<400> 10505

gagtgtggac atcgagtgc ccaacgctcc caaggatttc caggtcagcg ggtggtacca 60
aggagcagac gacgattcag acaagcaacc acgcacgccg acaagcctag gagagtccac 120
ttaggacctc gagaagagca gcgccagac cttccagcta gacagaacca ccgccgacgc 180
atctgtggtc aacattgtcc ggctcgactt ctctcgaag catgggcagc ctgagctggc 240
gtgcatctac cgcttcaggg tgcacggcag cgagcctggc tctcttccgc accgcggcat 300
cgtgaggcct gatctagtta gggcctgtgt 330

<210> 10506
<211> 275
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-013-Q1-E1-H8
<400> 10506

gacgaagcgc caacggcgac ttcgtaaatt taaagatgat atgccggctc agtctttcgg 60
agggtgctcat agaaggaagg gtttcttctgt gtgcatccaa aaagggtgagt gtatgcgtgt 120
gtgcattcat agagggtgagt gtatgcgtgt gtatataacc ccttgtgtct gtactaatgt 180
taaaaaaaaa gtttctgaaa agtaagaaat aaacaaagag tagtatattg tgtacatatg 240

agccggacac accagcgagg gctcccaaag ccaac

275

<210> 10507

<211> 218

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-013-Q1-E1-H9

<400> 10507

ggctgagcaa agcggtaaca tagccaaaca acggtttgct acgaaaggtg ggtagaggc 60

ttgtcatggc aacatgggag gcatgttata gcacgtgggtg ggcatcggcg catagcaatg 120

gagcgaacaa cgagcaagca aagatataag tgatttcgag ggtatgggtca ccttgtctga 180

gatcccgcaa ggaagaataa ccatttcatt aagaagac 218

<210> 10508

<211> 261

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-A12

<400> 10508

acgcctccgg cctatctcca tggatctctg gctacctgtt tccaaggatg agctctaagc 60

tataacatta cgcacagttc gctccagccc tcgctcgagt ggcagctcgt ttcatagtcc 120

cggagggcct agcaacctta catcattacc acgtggggct ttcaatctgc tgacttttcc 180

tctcccagca gtgagggcga gaggattctt aagccttggtg gaatattgtg atgtattgga 240

tggaacactg gagtgtcact t 261

<210> 10509

<211> 215

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-A9

<400> 10509

gcgtccggaa ctaggcagcc cagtatgggg tcttggctct gccctcctca ttctggctct 60

cctgcgtata ctaagtgtgc agatctggca taagttttat ctctgggatc tccagcactg 120

cgcgacggat ttgactggga agacagcaat ggtgactggg gccaacagtgc gatttgggaa 180
cgctgtgtcc caggagctgg cccagcgcgg ggccc 215

<210> 10510
<211> 409
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-B10

<400> 10510

cgcgccgta caaattagag gaattatattt gttgctataa tactcctcag acactatgca 60
gtaccattc tatcacttgt taaatttatt tctaacagag ctcaaacttt gggttgtcaa 120
tggttgctaat taagggcatg atcttcaccc tctttgaaac cgtgggtcac ctgtgacacc 180
atctggagaa tgaaatatac tcaggcgggg ctctctggat gattctttca aagacaaatc 240
ctcaagtgc ttgtttcttt ggatttttat cctttgccct ctactcttcc cttttcacc 300
atcatcgctc cccactccc acacctggga agatgcaatg cctgtggctg aagcagcagt 360
tttgcaaacc tgagaacaaa agacatgtgt tgctaagcat actgaagga 409

<210> 10511
<211> 325
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-B11

<400> 10511

tagacccac tggctacctt ggtgcggcat tttcaacagc acagaatcac cctttacacg 60
atcaaacgat gctgtttcat ctaatgacc tgttgaaacag gggggctctt ataatggtc 120
acaatttcat ggttcgaaat ttctgatgtg ggcaaccact acaggatcaa gtacagctga 180
agggccgtga cctcctcact ctacagaact ttacaggaga agaaattaag tatatgctat 240
ggctatcaac acatctgaaa ttcaggatac accacattcg acagtatttg cctttactgc 300
acgggaagtc cttatgcatg acttt 325

<210> 10512
<211> 404

<212> DNA
 <213> *Triticum aestivum*
 <223> Clone ID: LIB31-014-Q1-E1-B12
 <400> 10512
 catgtcagtt ggaaacatac gaaataatat gtagagttga aatctgcaaa ttgcagacat 60
 taccaatcat cagattaaga ttactttctac actgcgtaac tttgggttga caatgagcct 120
 aattaagggc atgatattca ggcactttga aaccgtgggt cacatgtgac accatctgga 180
 gaatgagata tactcaggcg gggcttcctg gatgattctt tcatagacaa atcctcaaatt 240
 gacttgatc tttggatttt tatcatttgc cctctactcg tcccttttca cccatcagcg 300
 ctccccact cgcacacctg ggaagatgca atgcctgtgg ctgaagcaac agttgtgcaa 360
 acctgagaac aagggacatg tattgctaag cagactgaag gagt 404

<210> 10513
 <211> 331
 <212> DNA
 <213> *Triticum aestivum*
 <223> Clone ID: LIB31-014-Q1-E1-B9
 <400> 10513
 tcaagtagac cccactggct aacttgggtgc ggcattttca acagcacaga atcaaccttt 60
 acacgatcaa aagatgctgt ttcattcaag gaccctgttg aacaggggag ctcttagaaa 120
 tggtcacaat ttcgtgggtc gaaattttcc atgtgggcaa ccactacacg ataaagtaca 180
 gctgaagggc cgtgacctcc tactctgaa tcaactttac acgagaacaa attaagtata 240
 tgccatggct atcagcacat ctgaaattca cgataaaaca caaaggaaag tcattgcctt 300
 tactgcaatg gaagtcctta agcatgattt t 331

<210> 10514
 <211> 200
 <212> DNA
 <213> *Triticum aestivum*
 <223> Clone ID: LIB31-014-Q1-E1-C10
 <400> 10514
 aacagacaag tacgaatctc aagatgattc ctcataacac gaatcagtac gtacttcgta 60

catcaagttc cctaggtgtc aagaaattcc attctgggag gcaagttcgt caatcaaatt 120
 tgtttagaag tccaacacaa ttagaccatc taaacaagcc gcacagttgg ctcaaatact 180
 aatgttctag taccagaatt 200

<210> 10515
 <211> 378
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-014-Q1-E1-C9
 <400> 10515

tgcccagett cctggtggat ctcatggtgt actggacaaa cccaggcct gcgaaggccc 60
 tgtaacccaa gactggggtg cattgtaggg ggtagttgcg tacagaatgg ggataggatg 120
 catcggggga cggaaatata gtggagaatg gagttttcat gtcaccagga cacctttcca 180
 tctcaactcc atctctctcc cagtctcctt ttgggacatt acgtacgact cgaggataca 240
 aggaaaaacc atgttttgta ctgagaaact gagatcagta gctcctacct ggtgtcctgt 300
 tccttcagtc agcctctcaa ggctctgagc cctaatagcc tcctgcaacc ctgaggaatc 360
 cataacttaag gggacggg 378

<210> 10516
 <211> 444
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-014-Q1-E1-D10
 <400> 10516

ttcccgggtc cacatgctcc cgtgnagagg tgtctgtagg atgatgagtt cgctgctta 60
 aactcacca caggatacga acggaatcat ctcaactgt gaacgagatg catgctgac 120
 cttcacagtc gcgactctct ccatgtgagg tagaacgagc accatgcatg ttcatacaaa 180
 ggcttctgt catactagta gccgtggac gtggacgaat gtaccttgca gctcagctca 240
 ctctaggagg accccccggc cgggtgccat cacctgtgcc acaactacat cggcggtat 300
 ttctgtcct gccgtccagg ctatgagctc cagccggatg ggcgttctg ccaggccgaa 360

tgcagcagcg atctgttcac ggagccctca tgctacatct ccagcttggga gtaccccccg 420
ccctaaccce ctgacctgcc ctgc 444

<210> 10517
<211> 375
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-D9

<400> 10517

attcgcggggt cgacttccaa caaagcgata tccatcatct catcgataga cgggacaccc 60
tcgcctctat cacgtgggtat cagatttcca gggtgctcgg tgagatttta cagtttttta 120
gtactttaga tcgagtcctg tcttcatacc gatagtccac gaggatgtca tgtagcgaag 180
tttatgggta gttcaccatc gcagaagcac gctgagcttt gcttgatcta tccaggggtg 240
tgctttgtgc accttgaggt tgcagcatcc tgtctacttg caggtcttac agtcgaatct 300
ctaacatctt cgagtactgc ttgtaagtta ccacgcagct ggagcaccat catctacgag 360
gcttccatag actct 375

<210> 10518
<211> 352
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-E9

<400> 10518

acggtactac attccccgggt ccacgtctgt agtcgaagtt ctggtgcaca ggcggtgaag 60
cctgcttctg agttatgacc tctgtcggac gtttatccaa gacaggggta cagtgtgtat 120
aggcccaggt gggcaggagt cattcggtgc tagttgacct tcgtcgacgt gcagtcgaag 180
ttccatcacg acacctgcaa ttacgatacc tagcacgcct tcgtcgttca tgactaggac 240
taccacacct ggtatgctgc cggattcctg agcttttacc cgtgcagtac tgttcctgac 300
tcttctgtgt atatgaacgt gaccaccatt ctggactggg ttcggaacat ca 352

<210> 10519
<211> 431
<212> DNA

<400> 10521

cactcctcac aagtaactga tacagacttc agtcaggatc tcatagccag gatatgctcc 60
acatctgata agttttctca cgattagtta gggatcatg ctcagatgtg caccgtctta 120
tttgtggctg gaactctcgt gatttatgct gtctggcatg ctcttattgt tgttttatgt 180
ccagcttctg aaccgcatgg actgtcagtg agatcattaa ttgaggcttt acacccttcc 240
agtcattcgg cacctccact gagagtaacg ttgtagtcca gctgatgatg ggagtgattt 300
gcctgtgatt gttattggcc agcatatgtc tgttgtaccg accgtagtca cggaggatga 360
ctgcgaagat accgtgtgat cagggtccgac ccgttggtcg ccataggatg ggg 413

<210> 10522

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-G9

<400> 10522

gactaggaat tctatgcact tatgattgga actattagca agcatccgca actactaatg 60
ttcattaagg taaaacccaa ccatagcatt aagatatatt ggtccccctt caatcccgtta 120
tgcattcaatt tctatgctag gttgaagctt ctgttacact tgccctccaa tacatactcc 180
tatcatcata caactaacc ccatgggtga tacatgcgcg cattcatatg atgggaacca 240
aaggacaaca acatatccac atgcaaatta aatcaatcat agcaattcat caaccaccga 300
taggacaacg acattctact cagacatcat acgatggcaa cacaccattg gataacaaca 360
tgaagcacia agcccaatgt ccacgtagag ggtactacgg gttgc 405

<210> 10523

<211> 217

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-H10

<400> 10523

gacctcaagg aagaaaagaa gaagatatcg gctgctgtca agaaaatgta tgatattcag 60
gctaagaatg ttaagatcct catcaggcct gatggcacga agaaggcgta tctgaagcat 120

gacaccagcc tacgatgctc atgacttggc atcaccgttg gggatcatct taccctgagg 180
gagggtcctg tcatatctgc ttgagctcgt ggtgaca 217

<210> 10524
<211> 455
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-H12

<400> 10524

ctcgcggggtc gacgctcttc tggaaagaga ctcatatcag taagacaacc caagaatggc 60
gagatgctct tatccgtgca cgggtcacct cttggaatgt acaaagagga aaatctggca 120
gctattaccg aatctggaaa cggaagcgaa gagccgcctc acgatgccag tggccatcaa 180
tagtagtagt agagcttaac cggccctcaa cataaaaggc taggaatttg atgctgcatc 240
ttctcttcag gccgaagctg ggacaccaat cgaagctcca accaccaatt cagtgtgctt 300
gcagcagcat ctcgagtccc agcgtcagct gagagtctcc gacaagatgc agtgcggtgtg 360
taggctatca tgtttgatat aagatcttat catgtttgat gtgttgcaag tgcaagcatc 420
tgagtcatgt ttttgtttgc tataaatcat accat 455

<210> 10525
<211> 438
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-014-Q1-E1-H9

<400> 10525

actacactcg agaaaatctc gtctttcctg gagccaccac cgatggacgt gcgaacgagt 60
tccagcacc cactgatagg cccagggccc ccctgcatct tctccaccgc cgcccacggg 120
tgcggggtcg gtggcctacc ggctgcagtg atcagcatcc caaccctgct ctccctcgctg 180
tctctcctga tcatcagctt catcttatgg aaaacttgcc gccggttgct ccgggtcacc 240
catccccgcc tgccatccac atgagggggc caggaatctg aattgtggaa tgtgacaccc 300
acaaatggcg ctgagttata ttaatgcctg cgaacctctg ctgctgaggc ccctggagct 360
accctgctcc tttcaaagac ccattcatca ataatccttt tgattctgaa agtccttgca 420

atcaagtccc cagacttt

438

<210> 10526

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-A3

<400> 10526

gtccaccata cattacaaag ggggcagcag agccttgtca catggggccac cccaagactg 60

agtgaagata aggttaggca atgtgttgac tcaagacttg gaggggacta tcctcctaag 120

gctgttgcaa agtttgcagc cgtcgctgca ttgtgcgtcc aatacgaagc cgacttccgg 180

ccaaacatga gcatcgctgt caaggcgctc cagcccctgc tgaacgcgcg agcagcccac 240

cccggggctg aacacgctgg acgctaagct gactcgggc cttttgtatg atataataga 300

taaggaaaaa tgagccatca attgttgttc ttgcggggca tgtggcaagc ggtttttcta 360

catttgtgat tattcttccc aagttgtaac cctcgagatt ctagtaccag aaatatttga 420

ttccttgtat cggttgc 437

<210> 10527

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-A4

<400> 10527

tccacaagcc gatcctaaac actgactccg gcataggtat tcctatgctc tgctctgctc 60

tctctctctc tctctaagc cactgggccc tgttactgtc cactcgacgt ataactgatg 120

cttcaaagt taggcatgat ataagtaa cctgtttcct ttgaagagat agattttcac 180

atgaaggatg gcattacggc agtaggaaca ctctcttggt ttgtttgatg taacatgtcg 240

ggtttccact ggcattatac atatttgagg ctggcgagca aatttatggt gaacaatttt 300

tgtatacacc tttaccagc tagcaaaaa ataactttt ccatttagta ttcctatgctc 360

aacacaacca tgagtgtaac ttcttttga aatgatgtta ttactacaa tgctaccctc 420

ccatctctc ggattgggg 439

<210> 10528
 <211> 413
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-015-Q1-E1-A5

 <400> 10528

 ccgtaatcgt gaacgtcaac ggcgcaacga ctcgaaacgc gtctcccgct ggactcgctc 60
 cacgtacgcc atctcgtctc gtttatcatc gtctcgccgc gtaccgggtt gccccaacga 120
 acgtccctct ctccaccaat ccaatattcg aaaccgctcg agaaagaaag caccatgcaa 180
 gatcgagata gcctctgtcc ttgcttgagc caacgtacgg agccgcgtaa ggaggaagga 240
 actgcgaaac tgtagtatct gccttcctaa tgggcccagc aggtctcca tccgatctgc 300
 ccatataagt tgagcaccgc agccttttcg gcccatcgtc gtcgcctgtc ccagttcccc 360
 tgttcaatac tgcgaaactg ttgtatgcag tgctgtgccc gttgtacatc tac 413

<210> 10529
 <211> 430
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-015-Q1-E1-B1

 <400> 10529

 ggtcgacgag attgtcaatc taggccccgt atttctacac aatatgttcc cttttgagag 60
 gttcatgcga gtcctaaaga aatatgtccg taaccgtgct aggccagaag gaagcatctc 120
 cacgggccat caaatagagg atgtcattgg gttttgtggt gacttcattc ctggccttaa 180
 gaagattagt ctccctaaat cgtgggtatga ggggagacta actagaaaag gcccgctagg 240
 aggggactca ataatatgca aggacgggca ttcttgttct caagcacact acacagttct 300
 acagaactct accttggtga cctcgatgtg cgatgaacac aagaacagtc tatgctccaa 360
 acaccgaag cagtgtgatg attggattac atgtcaacac atcaggactt tcggcagttg 420
 gttgggaaca 430

<210> 10530
 <211> 416
 <212> DNA

gtcgcagcagg gccccagac aggccattcc cactgcacct cgcaggacag ctcttacttc 60
gccacaggct ccagcagcgg catcgtgaac gtgtacaaga gggacgagtt cctcgggggg 120
aagaggaagc cgctgaagac gatcgagaac ctcaagaccg agacgggcca gatgaagtcc 180
aaccatgacg cccagatcct ggcgataagc tcgggcaagg atangaatgg gatgaggctc 240
gtacacgtcc catccttcac cgtgtaccaa aactggccag ggccacgggt cagccttcag 300
taccgcagggt gcctggactt cagccctggg agcgggttcc tctccgtcgg gcacgccggc 360
ggaaaagtgt tgctctacaa gctgcaccac tatcagaacg cttagggttc ccacagtcca 420
gttttgacac tgtatatttc 440

<210> 10533
<211> 415
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-015-Q1-E1-D1
<400> 10533

tcgacatcac gagcgaacga cggactaac actgagctgg agctgaagtt atctgctgcc 60
tcggaggagc tacagttcct taggtcaaaa ctgacactca tggagagata tgccaacata 120
ctccacattt caatattccg caagcccatg gacgaacgga cacttcctcg ctacttcaa 180
gagtctgcag tctttgatat cagaaaggaa tttgagaaca tcttggttc gtcggatact 240
gatgagctcg ctcgcttgga gatgttttac cgtagcgtgc tttctggtgt taaggacaag 300
cttctcaaga gaaaagtga agtgatggc caagaatgca ttgtttcact ctctgcaggg 360
aggcaaacc cgcgtggtca gtgagttgga agaccgttgt tataaactgc atttt 415

<210> 10534
<211> 410
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-015-Q1-E1-D2
<400> 10534

tgccacatca tctttcaagc atagcgtccg tgacgaatgg ctcgccagac acctcggcca 60
aaataagccg agaacgatgg ccgcattaac aaacctcatg acccgctttt gcgcggggga 120

ggacagctgg ctatccagat gcagcaccag cgaccccagt acatctgaag ttagagatgg 180
aaacgggaaa tcacggcgca acagcaataa caaacgccgg aataaagaag acagaacgaa 240
gggcacggca gtaaattgcc gattcaaaag ctctcagcca ggccaaaagc cgccccctaa 300
aggcaccagg gacgaattgt ccagcccctg gtaaacttgc taatcatacc cagtagataa 360
tgttgggtct tcaagcagtc cggcaaaactc aacgccggtc gacaaggggg 410

<210> 10535

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-D3

<400> 10535

gcgttgatgc gaaatccatc atctttcaag gtctgggtga ccggaacaga gccacagag 60
agggtaatga cagagatgta cccatcagca gcggagtgc tgtctccgga ccagagtgtt 120
tcagcagagc catcagggcc gcggtgattc ctcccaactt caggttgggtg actggagtca 180
gcaagttcaa cggtagagtct aagcccagata cttggcttga ggactaccga gtggctattc 240
agatcgacga tggaaatgac gaggtggcca tgaagcatct gcctctcatg ttggaagggt 300
caaccagagc atggttgaat cagttgacac ccagcagcat ctacacatgg gacgacctct 360
cctgagtgtt tgtcaggacg ttcgaagg 388

<210> 10536

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-D4

<400> 10536

ctcgcctagg gtatctggaa aattggggta tttatagagc aaagaggcgg ttcggggggc 60
acccgagggtg ggcacaacc accagggcgc gcctgggcct cctagcgtgc ctggtgggtt 120
gtgctcccat cggagcacc cccatgtgtt gccttggccc attgggtgtc ttctggtcca 180
taaaaaatct ccgtgaagtt tgttgcatth ggactccgtt tggattgat ttctgcgat 240
gtaaaaaaca tgcagaaaac agtaactggc acttggcact atgttaatag gtagtagca 300

aaaatgatat aaaatgacta taaatgatta taaaacatcc aagattgata gtataacaac 360
atggaacaat caaaaattat agactcgttg gggacgtatc agcatcccca agcttaactc 420
ctggtcgtcc tcgag 435

<210> 10537
<211> 370
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-015-Q1-E1-D7
<400> 10537

ggaacgagca cataagttgc agcacacaag tcgctgatgc cctcctctgg ttcctctgct 60
ccttgtccag atcgatcctg ccgccagcga tggaaagatg ctgctccgcc gctgcctgat 120
cttccgtctt ctctctcccc cctgggtccaa atccctaatt tttccccaag gattcaaccc 180
caaactttct aatccccctct cagatttgct gtgggctgct cttcctctgc tgctccagat 240
tgaactcgcc ggcgctgatg accgcggtgc cgctgggtgg tgcagggttaa cgctcaagtg 300
tgcagccatg gagcagatcg agcatatgtg caggtagaga gatgaagacg gtggggaaga 360
caagctgttg 370

<210> 10538
<211> 441
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-015-Q1-E1-E1
<400> 10538

ggtcgacttc caccacacga tagccacat ctcatcgaaa gacgagacac gtttgctctt 60
atcaagtggg atcagatttc caggttgctc agtgagattt tacagttttg cgtagtttag 120
atcgagtcta ttcttcatac ctacagttca caaaaaagcc aaaaaaatta gggtagtttc 180
atcatatctg aaccaatcta agcctttgca taatcttttt agggttttgc attgttgaat 240
ttgcggttgc atcgctgtgt ctagttgctg gtcttagtgt ctagtccttt agagtttcga 300
gttctgtcca caagttttca cgccgctact gcaccatcgt catcaccgct gccatatacc 360
accatcgtcg tcatcgtctgc catataccac catcgtcatc acgctcccat ataccacat 420

cctcatcacc actgccatat a

441

<210> 10539

<211> 431

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-E2

<400> 10539

tcgacaagtc gggagaaaat gatcatcatc ttcaccacca actacaagga gcgtctcgac 60
ccggcacttc tgcggcctgg caggatggac atgcacatcc acatggggta ctgcaccacg 120
gaggctttcc gaattcttgc caacaactac cattccatcg actaccatgc cacctatcca 180
gagatcgaga agctgatcga ggaggttgcc gaggtcctga tgaggaacga cgacactgat 240
gttgcgctgc atgatcttgt cgagctcata aagttaaaga agaaggatgc gactgagatc 300
aaaactgaaa gtaagaagac agagaagaaa gatgccactg atgacatcaa gattgaggct 360
acgcacgtgg atgggaagaa agatggtggt gagatcaaga ctggaagtgt gcaggtggag 420
gagaagaaag a 431

<210> 10540

<211> 373

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-E3

<400> 10540

tatcacatcg aaacatcggg acacctttgc ctctatcaat tggatcaga ttttcagggt 60
gctcggtgag attttacagt ttttcgtcgt ttagatcgag tctattcttt gtacctatag 120
tccactaaaa agccaagaaa aattagggtt tgttcatcct atccgaactg atctgaacct 180
ttgcataatc ttttctgtat ttgctttggt gaatttgagg ttgcatcgtc gtgtcaagtt 240
gctggtctta gtgtctagtc ctttagagtt ttgagttcag ttcacagggt gtcatgtcgc 300
tgctgccata tatcaccatc gcatcatcat catcgctgct gccatatacc accaccacac 360
caacttcacg gtg 373

<210> 10541
 <211> 439
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-015-Q1-E1-F2

 <400> 10541

 gtccacgagg ccttcctagc taagtatgat gtcaagccga acaatgccat tctcgccgag 60
 gacaagcact tgcccatgta cgatgagttg tccagcaagg aaaatgttga atacattgct 120
 ggaggagcca cgcagaactc tatcaggggt gcccaatgga tgcttcaaac tcttggtgca 180
 acaagttaca tgggttgcac tggaaaggac aagtatggtg aggagatgaa gagcgccgct 240
 aaagctgcag gagttactgc tcattactat gaggatgagg ctgctcctac aggcatgt 300
 gctgtatgtg ttgttggtgg cgaaaggcca ttgattgcaa acttatctgc cgcgaaactgc 360
 tacaaatctg agcatctaaa gaagccagag aactggggcac tagtttagaa agcaagatac 420
 atctaaattg ctggctttt 439

<210> 10542
 <211> 432
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-015-Q1-E1-F5

 <400> 10542

 cgggtcgaca aaaatatgca atagacgata atacattggt aaaaagcagc gctaattttt 60
 aagaactaac cacagcgcca gatatgaata ctttttcaaa aaaatgaaca cttttcttgc 120
 aaagtgtaaa gaaataatta aaaggcaagt attttttgaa agtctgaaca ttttggtgcta 180
 gatgtgagca aattccgaaa ttttaaactt ttctgaaatg cgatttgcata aaaatgttaa 240
 catcttttgg agttctgaat ttttttttaa aagtgtgaac ttaacaacat gaacaaatat 300
 tgaaatttca aacttcttcc caaatggcg aacaattttt gtagaaagt accatttttt 360
 gaaactgtga atttcttgaa aattctgaac tttccgttca aataatgaaa aatccaaaaa 420
 attctgaaca aa 432

<210> 10543
 <211> 437

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-015-Q1-E1-G2

 <400> 10543

 ttcgacatta cactctagaa tgactcgtat caccacccat ggagcttcct cttttccgtc 60
 ttcagggtgag ttgcgccct cctctctctg ctcttggtcg tggccattga ggcattgttc 120
 ttggttagga tttaccactg tttgggctca attgggtact gtttgaggtc aattttgtgt 180
 atactattaa gtgttgattg tttcttgaat tgaacagcaa ggtagacat gaatttgta 240
 gtagaataga tccctgaccg aactgcaatt gtagttgaa ttgtccaatc ttgaatttag 300
 ggagctgcta ctgaaagggt tttttcattt tgtatgtcat gggttggcca tcaattttat 360
 taaacagcaa ggttaaccac gatcacacga agccgaagggt gcacgatgaa gaaaccgtac 420
 gtgcatactc tatccat 437

<210> 10544
 <211> 441
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-015-Q1-E1-G3

 <400> 10544

 ggtccaccag cactgggtcaa ctgatacaca agcttggagg tattgacaag cgtgtgatcg 60
 agaggttcga gaaggaagcc gctgagatga acaagcggtc gttcaagtac gcctgggtgc 120
 ttgacaagct gaaggccgag cgtgagaggg gtatcaccat tgatattgcc ctgtggaagt 180
 tcgagaccac caagtactac tgcaccgtca ttgatgcccc tggtcaccgt gacttcatca 240
 agaacatgat tactggtacc tcccaggctg actgtgctgt gctcatcatt gactccacca 300
 ctggtggttt tgaggctggt atctccaagg atggccagac ccgtgagcac gccctccttg 360
 ctttactct tggagtgaag cagatgatct gctgctgcaa caagatggat gccaccactc 420
 ctaagtactc caaggctcgt t 441

<210> 10545
 <211> 355
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-G4

<400> 10545

gtccaccagc ccccgccagt ccatcaccgc cgccaaccca agaactgaac catggcgaag 60
atcaagccaa aggcattgct ggcacagagc aaacagaaca agggccctac ccagatcggc 120
ctgttgagga tcatgacctt catcgtcctc ggcgccttag cagtgtcctc cgtttactat 180
gcctatcagt actggcagag caaaggaccg gccgttgagg cagcagcagc ataatgcgcc 240
gtgggaaact aaagccccag gaatgtactt gattttgctg ctgttggtgt agtgtcatgt 300
cgtttttttc tgggtgttcgc agtccggtaa atttgtgaaa cattgacaga gcatg 355

<210> 10546

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-015-Q1-E1-H1

<400> 10546

ggtcgacagc acacactatg acccaatctt aatcagaaaa ttactcatat atccaacata 60
tcgtccatca ctcatgtcga gcccaaagt ggcaccgat catgtccatg gctacttggc 120
ccgggtcggg gcggggcagg gagcctgccg acgtcgggtg aggcttaaaa ccttgcagtc 180
accctcgcca taatagccga tgtccgaagc agagtgaaca tagttgggag gcgcctggat 240
ggcatcagct tcaccaatta tgttctcctc aacatgctct agtccaaac tagcaccaac 300
acccatagaa acctgaatgg cagccatgta acatagaaac tgtatggatc tcgatgacat 360
aggcaaagt aatccaaatg taaaattcat tttaaaatat gaatattgtg gaaaatgtac 420
acatgtctga gaaacaacgt 440

<210> 10547

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-B6

<400> 10547

ctcgcgggtc gacgacatgc tgtacatcga gtcatgggac aggaacagga gcctcctcat 60

cggctatgca tgtctcttcc agagacactg aattcaccgg cgcggcgcct cactggagg 120
 cagagttatt gatgccttcc tggctgctgc cgtctgaaaa cccattatg cttctagcct 180
 tacgctcaac ccacttcagg ctaccctga taaaatttgt aagatcaact cggtagctct 240
 tggcatcagt tgagctgcca ccgcaggaga ttccatctcc ctctcaccg cgttgctgca 300
 ggcttagctt ctctgcaact ggttttgcag gttcatcagg gcccttggtc tttctagcct 360
 gcagtctgtt ttctcggaa gaatcaccca gcaaggccct tggctctctc cgtggaggag 420
 cagattttgc agattcatg 439

<210> 10548
 <211> 429
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-E2

<400> 10548

tcgtgggtcg acatcagtcg cgtaaaatga gtcattctat ccatgtcggg tggccgtctg 60
 tctgggtcag gatcgcgacc cagtgggcaa cagcaggtct gttcatctgg tcccttggtg 120
 ctccccctct gttcccagac agggagtctt agatcgacct ggtagctgca tagtgacatac 180
 ctgctagtgc atcatctgat tggagccacc tacgtattgt atcgtatcga acgtgttttg 240
 gctgtgatgg ctaagctgac tatctgtatt ctgggtctgta atattgtgta agcaaaccga 300
 tggcaaggag ccggtgtttg tgtgacgttg tcgagtctgg tctgcataat gtgtgaccta 360
 acgcattgtt gccagtattt caacagtga gatacggctt ttggttgat atatattgaa 420
 gttgatcaa 429

<210> 10549
 <211> 432
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-E5

<400> 10549

gggctgactc cgaccagtac accgtgcccc aggggaagcg cgccatcgag cttctctccg 60
 gcaaggagg catcatctcg cagatggtgg agacgacccc tcagaaggcg tacaccctga 120

cgttcacgct gggctcggca ggcgactcgt gccagctgcc aatggctgtc atggcattcg 180
 ccggcgacca ggcccagaac ttccactact ccccatggg caacgccacg agccaggccg 240
 tgaacgtgaa cttcacggcg cgcgccgaga ggacacgcgt tgcgctctac agcgtctact 300
 acaacacgag aagcgacgac cacagctcgc tctggggggc ggtgatagac gacgtccgtg 360
 tctgggggctt gaatggggct gctgggttga aggcaagtat tgcgctgctt attgccatgg 420
 ctagtgtcat cg 432

<210> 10550
 <211> 291
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-016-Q1-E1-F3
 <400> 10550

cgcacaggctc cgagactcgc gggtcgacat catgggtgaa agttactcca agtactgctg 60
 gtatcagcag tacggacatt gatggggctg agtacaagtt gctggggagg tggaatgcac 120
 ttcaggtatg tcatgtgtac ctgcaagtga aaatgcccgg gtttcagact gtgaatgttg 180
 ctggttcggc ttaacataca aactggctgt ccattgtatt ttaaacaatca gtacatcaca 240
 aattcactat gttatagtgc tcttcttaca tttgcagata tcaagttggt g 291

<210> 10551
 <211> 396
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-016-Q1-E1-F6
 <400> 10551

aggtagaacc aacacaacag aacaacaacc gttgtcgatg aagagtagtg tagatcagaa 60
 aaaatccaac ctgaagacac gagaacatag acgaacgatg aacagatgcg agcaaatcca 120
 ccgtagacag atctgccgga gacacgtcct cacacgccc cggcgatgg aagcaccacc 180
 gaaacggggc ctagagggga gaaccttatt ccatttttag ggagccgcca ccgcctcgtc 240
 ttccttagca ggacagaaac cctaacaaaa ctcgaagaaa gatctaaaaa cggagccctc 300
 ccaccagcag gaaccatgat ccactctgtt cccatgactc tacggccgca ggagacgagg 360

cagaccaccg acgggaggca tagaaaccct agcttt 396

<210> 10552

<211> 431

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-F7

<400> 10552

acaggtacag aactcgcggg tcgacattcg ggtgtatggt gtgcctaagg agggttagca 60
actgtaggga gctcctatcg tcttgtctat tattaagtgc tgtaagcgtc agttcgcgcc 120
gctgggcttg aactcctggc gtcgcacaag cgtaaccac tggaccaagc tcagtttgtt 180
gattacttga ggaaaacaga gcgctttgac ctttcattcg gtacaaacac tagacatatg 240
ctagtattat atatccacca tagattattt gaataaagaa aacataaatt tgaaaaagca 300
ttcacatata ccatgaattg aacagaaaag tttgcaaaaa atggaaaaaa attcaagaac 360
cccaatagaa ttcaatcaaa tttgacaaga gttcaccaaa tttgagaaac tttcatctaa 420
gttttacaaa g 431

<210> 10553

<211> 221

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-H1

<400> 10553

acaggaccga gactcgcggg tcgacacaga accataaact tctgctcaat aacattttag 60
tactcacact ttttgetgat gacttcagat ctgaacctaa cggtaaaagt gccgacctta 120
aatgaaccg ccaaatgcct aaaccaaact aagaacaact gggaagccag tccgttgcca 180
caaggggctt taaaccaatt tttaagacac cttcaacaac c 221

<210> 10554

<211> 322

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-H2

<400> 10554

gggtcgacac gattatcaac agaggtggcg aaccaaaccg tcgaagctcg ttgatggctc 60
ctacagtgtt cggaacgaat gaatcttctg tatgtatcta catatcacac caaaagggtta 120
ccgaataaga tgtgtgattg gctttcgccg tgtaccata ccagcatcga ttctgtatca 180
cttgtgtggt agtttgcaca aaacctgctt gaaaatgttt catggaaact tctttgcctg 240
gcgatgatgc ctgtattgaa taataaatga ttcagtgtca caaaaaacaa aaaaacaggg 300
ttaaaaaaaaa agcgccgct ct 322

<210> 10555

<211> 415

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-016-Q1-E1-H4

<400> 10555

gggtcgccag aatcccgcga aatcagtcgg agaaacctcg acacgccctc caacgatggt 60
agaagcacta tcggaacggg gtagaacgtg ggaacatta ttctactaa gggatgtcgc 120
cgccgccaca cagtcccaac caaaacgctg aacctaacaa gaacgagaac aaggtcctc 180
ccgctggcgt ggggccgaga tcctccacac ctccacggcc tataggccat caaagatgtg 240
gcaaactggc ggcggcgccg atgggaggag aagtgttttt cttgtcaagg aaaaaatgg 300
cataaaagct ccaatttgac acatgtatct gcactactta atcattcata gttgttgggc 360
ctacaaataa gaggtanggc tgacattttg caaaactgcc ctatagtaac ccggg 415

<210> 10556

<211> 358

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-A1

<400> 10556

gtcgacatca cgggcttact ggagtccgtc ccagttttgg tcgtcgaacg atgacgatac 60
ccttcatact atgtgtaaata gccctggcg acgaacctgt ggcattgcaat ggccaaagat 120

tggcctagcc ctgatgtgga ttttgttcac aacaatggcc ctgaatggat gttctcctgc 180
tctagccact cacagatacg ccacgcgtgg tggtgctgac catgtgacgt acttggcacg 240
tccgtaacga gataactcgt cagaagaatc cgcacctac aaaggcctcc tgcagacttc 300
tccattgata tattaattcc ctgatataata aacggcaaca gcctatcgct gatattgt 358

<210> 10557
<211> 347
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-A2

<400> 10557

gggtcgacaa gattatcaac agaggtggga accaaactgt tgaagctcgt tgatggcttc 60
tacagtgttc ggcagcgagc ggagtcttct gtatgcatct acatatacaca ccaaaagtta 120
ccgaataaga tgtgtgtgat tggctttcgc cgtgtactcg taccagcatc gatcatgtat 180
cagttgtgtg gttagtttgc gccatacccg ctcgaaaatc tttgctgaaa cttcttcgcc 240
tggcgatgat gcctacattg aataataatg atccagtgtc agcaacggtg taacgaaaac 300
agatgcatgt tcgtctaaat ctgtgggaaa tggtgcgtga taattgc 347

<210> 10558
<211> 366
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-A5

<400> 10558

ctcgcgggtc gacgcacaac gcaacattca gtacgtagga tccttctctt gggagccagg 60
gacaggtgga gaacgggaag gcgccatggg aaggggtgag ggagcgctgc cggaaagagt 120
gggggatctt ccagacgagg atcgcggagg ccgacaaggc gtattacgag atgatgggag 180
tcacctctcc caacgtaaca tctgtccact aggcgcgtcg atacatacaca gctgttaatc 240
ctccctgtcc cccttttttg tcatctctag agcccttatt gtagtgagct taggtgaatg 300
gtgatgatat tgatgatacg ttagagcat acacacatat cataccatat cagattaatt 360
ctgtta 366

<210> 10559
 <211> 443
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-017-Q1-E1-B1

 <400> 10559

 gggtcgaccc aagtccatat tctggtactt cctcaggaag ctcaagaagg tgaagaaggc 60
 caacggccag atgctcgcca tcaacgagat ctttgagaag aaccccacca ccatcaagaa 120
 ctacggcatc tggctgcgct accagagcag gaccggttac cacaacatgt acaaggagta 180
 ccgcgacacg accctgaacg gcggcgtgga gcagatgtac acggagatgg cgtcgcggca 240
 ccacgtgcgt gccccctgca tccagatcat caagactgcg acggtggact tcaagctgtg 300
 caagagggac aacacgaagc agttccacaa ctccaagatc aagttcccgc tgggtgtacca 360
 gaaggtgcgc ccacccaccc gcaagctcaa gaccacctac aaggcgacga ggcccaacct 420
 gttcatgtga tcgggtccct act 443

<210> 10560
 <211> 441
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-017-Q1-E1-B3

 <400> 10560

 gtcgacaagg ccatacctcgc cctcaagacg cagcgccgca agctcgcgca gttccagcag 60
 cagcttgaga aggtgatcga agcagaaaag gaagctgcac gccagttggt tcagcaaaag 120
 aagagagaca gagctttgat tgcactgaag aagaagaaat cccaggaaga gtcctgaaa 180
 caagttgata catggcaa at gaatgtcgaa cagcagctgg cagatattga actagcaagc 240
 aagcaaaaag ctgtattgga aagcctaaag actggaaatg ctgcccttaa gtctatacag 300
 agtgagatta acatcgacga tgtccaaaag ttaatggatg acacagctga gaccaaggct 360
 tatcaggatg aaataaatgc cgctctgggt gaacaactat ctgctgagga ttaggaggct 420
 gtcatgggtg aatttgacaa c 441

<210> 10561

<211> 434
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-B6

<400> 10561

```
actcgcggt cgacgcgacg cgataaagtg tgcctcgga tgctcgtggg ggcagagctc 60
gacggcctca ccaacctgca gccccgcggc ggctgcgacg accccagcta cccttactac 120
ttcaagtgca agttatgttc gagggatgga tcagttgtga tgattcctgg gcaggggaaca 180
ccactaactg ctgagcagag ccagaaagga gagatgactt gtttgatggg ctttgaatgc 240
agaggctatg aacctattga gttcgctttt ggtaatggct ggaaggctga atctgtacat 300
gggacaccat ttgacattga tctttctgaa ggagagtttg atgagtatga tgagaaggga 360
gagtgccttg tcgctctatc caagctgcag tcaacattca gagtgggtga aaagcagggg 420
tttcatgggg aaga 434
```

<210> 10562
 <211> 441
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-017-Q1-E1-C2

<400> 10562

```
cgagactcga gggtcgacgt atcacacgaa acttctgccc aataagtgga tgacatctgt 60
cccaacgatg agccgacacg tatttctctc agccaatgat gattttacac gtggaaaatc 120
cccattggtc ggggctgtta acggtttctc ggatccaaaa cccgacccga tagcttaacg 180
acgttccatt acggtggatg ccacgtgtcg gtcacccttg acgaaatcac ttttgtgaca 240
cgcgatttat cgtcatggaa gtgcacactt ctgtgatgat aattttggta aagtcatgga 300
acacttctac gatagcacag gtatgactat cttgattctg tcataaaatc gtcatggatg 360
tacatgcatg acanaaaaac gcgacctact gtgacaaaca cgtatcatca cggaagtgtg 420
attttttgta ntgattgtcc c 441
```

<210> 10563
 <211> 446

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-017-Q1-E1-C3

 <400> 10563

 attcaagggg cgactccttg tatggctgga catattgcta gcctactcca gtcacgcta 60
 caatcggttg ttacagcagt atgttacttt cctatgatat catgatggct tgcttatatt 120
 actctcaaca ttactgaaa aaatattcat gtcataaca tgcttttctt aagattgact 180
 ccaacttgat atgatgttgt aggcctcttg gtgcccctac ccttcctaataa cccagaacct 240
 ttcaaagtaa agtggcatgg cagttgcagg tggttactgg ctcgatcaga caacggcgaa 300
 cgattgatga tcgttctcac gtaccggacg tgttgtttcg cggaatacaa tcatagtcac 360
 tgcaaagggtc ttgagcagg atcctagctt ctttgggcct tcaagaattt ttgactggag 420
 gctggtaagt agccttggtg cagcgt 446

<210> 10564
 <211> 400
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-017-Q1-E1-C7

 <400> 10564

 gatgagaaag attggttgct acttggtgct gtgcacagtg atgcctgggt gctagcagta 60
 gccttctact ttggagcaag attcgggttt gacaaagaat ccaggaagcg gcttttttagc 120
 atgataaaca acctccccac catatatgag gttgtcaccg gaactgcgaa gaagcaggct 180
 aaagaaaaac accccaaaag cagcagcaag ataaataaat ctggcactaa gccatctcgc 240
 cagccagaac ctaactcaag gggtcctaaag atgccaccac ctccgaagga tgaggacgac 300
 agtggaggcg aggaagaaga gggagaagaa catgaaaagg cattatgtgg tgcgtgtaac 360
 gataactatg gacaggatga attctggatc tgccgtgatg 400

<210> 10565
 <211> 435
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-017-Q1-E1-D4

<400> 10565

ggtcgacgcc atccacaaaa tacataccta taaaaacggt tttgagaaca ttttagaagg 60

ttcctatcca gtttttacc a ttttggggat cctcgtatat ggtttttgac tgttttttca 120

ttattttttc ctttttttct ttttagttta tattatgtta atttttttcc aatatacaaa 180

attttcaa at tttcaaaagt tatttggaat tgtgaaacat tgttaatgat ttccaaaatg 240

tttacaagtt tcaaaaattg ttttttggaa ttttaaaaag ttcttatttt tttcaaaaaa 300

cgaatagaac ttgtaagaaa atttctttta gaaaaaaaga acaaaaccta ttcccaat tt 360

taaaaaagtg tttgaaat tt tcaaaaactg ttgtggtttt ctataaattt attggaagtt 420

taaaaagtac aaaat 435

<210> 10566

<211> 342

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-E1

<400> 10566

ggtcgacaat tgaattcaaa cccaatacag ccaatgatcc ccatatgaga aagcccgata 60

ttaccaaggc caagcaactg ctaggttggg agccaaagg atctctgaag gaaggccttc 120

ccttgatggt gacagatttc cgcaaaagga tcttgatga gtaatcaagg caacagtgag 180

atgaatctat ttggttctga atgctgcaa tataggcaaa cgcgcttcac caactggatc 240

cgttcagtac aattctgtgt ttgtataacg acctgtaga atcatttaaa tttgttttcg 300

tcttggtgag actggacaga agtaaccaat ggttttttgt cc 342

<210> 10567

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-E6

<400> 10567

ttcccgggtc cacatcgagc cagaagcgca tgtcaagcag gcgatgaatg agattaatgc 60

agctgcaagg atgaggggtg ctgcaaacga gaaggcggag gctgagaaga ttgtccagat 120

caagcgtgcc gaggggtgaag cagaggccaa gtacctgtct ggcttgggta tcgcccgcc 180
gcgccaggcc attgtggatg gcctgagga cagcgtcctg ggcttctcag tcaatgcgcc 240
tggcaccact gcaaaggacg tgatggacat ggtgctgac acccagtact ttgacactat 300
gaaagaggtt ggcgcgctct ccaagtcctc ggcggtgttc atcccccatg gccctggcgc 360
ggtgcgcgac atcgccacgc agatccgcga ccgtcttcgt cagggggccag tctgcctctg 420
acaac 425

<210> 10568
<211> 441
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-F2

<400> 10568

attcgagggc cgactctcac agaaaacgat agccatcatc tcatcgaaac atcggaagac 60
cttagcctct atcaagtggc atcagatttc caggttgac ggtgagattt tacagttttt 120
cgtatattag atcgagtctg ttcgtcatc ctacaggcaa cgataaagcc acacaaaaga 180
ttacggtag tgcatcatat ccgaaccaat ctgagccttt gcataatctt tttagggttt 240
ttgcattgtt gaatttgccg ttgcatcgtc gtgtcaagtt gatggtctta gagtcgagtc 300
ttttagagtt tcgagttctg gtcataaatt gtcacgccgc cgcgcacca tcatcatcgc 360
ccatctacca cttttgcata tccgccaacg ctctgaatcc atatctatat accaccacga 420
atccgtattc atatatcacc a 441

<210> 10569
<211> 443
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-F3

<400> 10569

tccggaattc tagggggccg cgaggtcgtc aaggcgccga tcgagctcaa ggactcggcc 60
aaggtcgcgg atctgcagga ggccatccac gccaagacta agaagtatta tcctgctagg 120
caacggctca ccctccctgc acagcctgga aaatctggaa agccagttgt cctcaatcaa 180

aaggccagcc tatcggaata ctgcgagaag gggtccgggt ccttgacagt ggtcttcaaa 240
gatttaggcc cgcaggtcta ctacagcagc ctcttcttct gggaatacgt cggccctctt 300
atcatctacc ccatcttcta ttacctgccc gtctacagat actttggata tgagggggag 360
cgggtcatcc accccgtcca gacgtacgcc atgtactact tctgcttcca ctacttcaag 420
aggatcatgg agaccttctt cgt 443

<210> 10570
<211> 385
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-G1

<400> 10570

ttcacgggtc cacatctact aaggaatcag cttaagtggg ttcagccgcc ccaaactga 60
ctcgatccag gggtatatat cataaagggc ttcgacaagg gggttgattc gttctttgag 120
caaaaagata aggtcggaat accggagttc tttctttgct tccaagaaca tagattcctt 180
cttcaacca ggatcatgacc gagggcgggt atctcactcg catatctaga gccagcatc 240
tctctgaac gacaccttct gcagactcta ctggtggtat ttcccgaggc gagggatcaat 300
atgtgcattc atatcgggtca ggaaacgaca atgactcttc ttctttccgg gaagctatgg 360
gcacctcaca attcttatac gacat 385

<210> 10571
<211> 316
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-G3

<400> 10571

gtccacactc ttactgaaga agtgtcctgc gagacgcca tcaacgagta tgtccagtcg 60
tgtgacatcg ttgccttcaa caagatctag aatctttggt caccacttg ttgctgctgg 120
attcttggtc ctgggatctg tcgatctgga aaacattatt gtcgtcccat ttagttaccc 180
ctcttacaga aatgctgctg gttttgtttt tgagtgatgc cctgggtcttg aatgtctgct 240
acctttaaat agttgaactg ctgagcgggt tgtaatggcg aaacatctat catgtggagt 300

aaaatcagtc tttgat

316

<210> 10572

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-G4

<400> 10572

attccagggc cgactcgaac tcaatccctc tcccgcttac tacgcggtgg ccccgcatgc 60

tgtagtactc ctacaaacca taccgcccga cgcacatca gttttcttca agaggacgag 120

ggagaagcgg atttgtagtg gaggcgcttt aaaaaaagga tttgtagtgg aggccctac 180

cctaggggtgc cctaggtagc taccgcacac atcattgggtt ttcttttttc tttataactct 240

tgcgccttag agtgaaatga tgggtgcttc atccgtccaa cttaatgcgg gaaagggtggg 300

gctttgtgat ttgacccctc atcgctcatt tactactatt gcggcgctac gaccgggggtg 360

cctccaagtc caaccgctgc tccgaactat aatttggtgc atcacgctg gaacaagatg 420

gtggatgagc cacatg 436

<210> 10573

<211> 380

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E1-G7

<400> 10573

tcccggtgcg acacatcacc taaaggagag gctaagggct gcttatgcgg acaaacaaca 60

tgccgaatgg caggaagccg ctggatcatca tgtatcgaca caaaccatta atgagaagaa 120

caaactaccg gatgcaaata tcaagcaagc cgaagaactg aaggatttaa gagcccaact 180

atcggtatgct ttcaaggaga acaggaagct gagaggcagc atattcagta tgctctttaa 240

cctgactgtc acatggtctc ctgtttgaaa atttgacaag tttacttctg taggtgtgct 300

aatcagacac cccgaaggag aagtgtctgg attccaaggc gaccagctac aagagctatc 360

aaaggtgcac gaacaagcac 380

<210> 10574
 <211> 431
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-017-Q1-E1-H1

 <400> 10574

 ggggtccacct accgtccgaa aatgaatgat aagagggctc aggtcagagg tgctcaaggc 60
 tctgtgagta gagagaagca tgatgcatct gctgccaatg ccagcgccac ctcttcgaaa 120
 cccaccacct cggccaaggc tccagaacca ccaaagggtt ccaacaagtc ccggaagaaa 180
 aagtcgaggt cttaggcgac aaagttgtta tgtcaciaat taacagtata caaaggacac 240
 tgtccatttt agtatcttga cttgattttt ttgtgttatc tgcattggat tggcctgcgc 300
 tgtgccttta gaaccatgtt tatggcgact tgagatccta gacttggtgc aaatttttgt 360
 taaaggtgtc tgacttacct ggtttgaaat tcccttcctt tcaatacaat aataaatttc 420
 cttgcaattt t 431

<210> 10575
 <211> 453
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-017-Q1-E1-H2

 <400> 10575

 gcaggcgctc gaaattctag ggtcgacctc ttgacctgc tgggatatcg ctggtaccct 60
 cagtacactg tgtacgagat ctaccgcgag ttcaaccagg agatgtatca cgctaagggt 120
 gatattctatg atcggcagaa caactccacc cactgagttgc atgcctttga ggggtattgga 180
 gtgactgtcg agatggcagt acaggagggtt gcctatgttg ctatcaccag cctccgtaga 240
 gggcatccac gcttgaggga gactgggttc agatacttcc cgtaccacc agctggggat 300
 gatactangc ggtacactgc tgtgtgtacc ccttacgtga gccgcgggta cgacccttag 360
 tatatgggtc gatacaatga ggttctggat cgcactgttc gagctttgac tgttgagctg 420
 tacgccacgc gtgcacgcca ctacgacact ctg 453

<210> 10576

<211> 418
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-017-Q1-E1-H3

 <400> 10576

```

gggtcgacaa aatttggtcc gacaattatg aacattctga agagactagc tgatgagggg 60
gcagcgcccg cagccccaga gaggcagaga gagacggagc tccaaccaag gaataatagt 120
tcaaacagca acgtgacatc agcagggtcc tccagcttaa cctcttcaga gaatggacct 180
gaatattcaa gcccggtagc acaatgatga gtggatccct agcttttagc tgaaagcttt 240
gtagctgcaa cggtttgagc ctaggagatt gaagtgcctt gcggtttttg tacgctcgct 300
tgcccttccc aacctgatgt atgaaaatta tgtggaagag tccacagctg ttatataagg 360
aattttgggg ctgggaatcg tttgtaagaa acattgtaga ataacttctg gttcactt 418
  
```

<210> 10577
 <211> 397
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-017-Q1-E2-A9

 <400> 10577

```

ggggtttgag aattggtgta agagaaacga ttgaggtttt ctcttattat ctaaaccac 60
caagtctttc aggatttttag ccagagaagc ttgagtcttt gattagggac atgtcaacct 120
ccgccgcttc cttgtgttgt tcatcaaccc aggtcaatgg gtttgggtctt aggcctgaaa 180
ggttgcttct ttaccaaccc acttcctttt ctttctccag aaggagaact catggaattg 240
tcaaggcctc atctcgggtt gatagggttt cgaaaagtga tatcattggt tctccctcta 300
ttctctcggc taatttcgcc aaattaggcg agcaggtaaa agcagtggag ttggcaagtt 360
gtgattggat tcatattgat gtcattggac gtcgtttt 397
  
```

<210> 10578
 <211> 424
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-017-Q1-E2-B1

<400> 10578

cccaagtcca agtactggta catcctcagg aagctcaaga aggtgaagaa ggccaacggc 60
cagatgctcg ccatcaacga gatctttgag aagaaccca ccaccatcaa gaactacggc 120
atctggctgc gctaccagag caggaccggt taccacaaca tgtacaagga gtaccgcgac 180
acgaccctga acggcggcgt ggagcagatg tacacggaga tggcgctcgcg gcaccacgtg 240
cgtgccccct gcatccagat catcaagact gcgacggtgg acttcaagct gtgcaagagg 300
gacaacacga agcagttcca caactccaag atcaagttcc cgctggtgta ccagaagggtg 360
cgcccaccca cccgcaagct caagaccacc tacaaggcga cgaggcccaa cctgttcatg 420
tgat 424

<210> 10579

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-B12

<400> 10579

gtccgacatt cccggggcca ctcccacagc aaaagatagc cagcatctca tcgaaacatc 60
gggacacctt tgcctctatc aagtggatc agatttctag gttgctcggg gagattttac 120
agtttttcgt agattagatc gagtctgttc ttcataccta cagtccacga aaaagccaca 180
aaaaaaatta gggttagtgc atcatatccg aaccaatctg agcctttgca taatcttttt 240
agggtttttg cttggttgaa tttgcggttg catcgctcgtg tcaacttgct agtcttagag 300
tctagtcttt tagagtttcg agttttggtc ataagttgtc acgccgctgc cgcaccatca 360
tcatcgcccg tccaccactt ttgcttatcc gccagcgtc tgaatccata tccatatacc 420
accaccaatc cgtatccata t 441

<210> 10580

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-B2

<400> 10580

ttccccgagtc cacaagaacc aagatgtgct tgattccatg cacaacgctc tctctatcta 60
 ccgcgaggggt tggcaactct gcgtaacga gggcgaagca ccggctcttc gaggatttgc 120
 aggtgctgac acattggacc aacaccatga taatggcaac tctgcctcgt taatgtcggc 180
 caccaacgat gataaggcca aaccgccccca catggccatt gacctcacct ccaacgggag 240
 gaatagatta ggttttcagt tgtttttagg gttttctttg ttatgtataa attacttcga 300
 aatgattgaa aaatcgggtgt ccaccttatt tgattactct ggttggaatg gctccgcccc 360
 gctggctatc cacaacatg tccgacaatt tttttgaagg cgtacttatt tgtattcaag 420
 caagcggcaa accaatacat gtacaat 447

<210> 10581
 <211> 452
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-017-Q1-E2-B3
 <400> 10581

ttccccgagtc cacaaggcca tcttcaccct caagacgcag cgccgcaagc tcgcgcagtt 60
 ccagcagcag cttgagaagg tgatcgaagc agaaaaggaa gctgcacgcc agttgggttca 120
 gcaaaagaag agagacagag ctttgattgc actgaagaag aagaaatccc aggaagagct 180
 cctgaaacaa gttgatacat ggcaaatgaa tgtcgaacag cagctggcag atattgaact 240
 agcaagcaag caaaaagctg tattggaaag cctaaagact ggaaatgctg cccttaagtc 300
 tatacagagt gagattaaca tcgacgatgt ccaaaagtta atggatgaca cagctgagac 360
 caaggcttat caggatgaaa taaatgccgc tctgggtgaa caactatctg ctgaggatga 420
 ggaggctgtc atgggtgaat ttgacaactt gg 452

<210> 10582
 <211> 393
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-017-Q1-E2-B9
 <400> 10582

ggagaagaga tcgagagaag aatagtttga tcattctgtg agaaaaataa tggctgctcc 60

agtgatgcta tcttcggtga cattgaaacc agctgggttc acggtggaga agacggcggc 120
 tagaggatta ccgtcgctca caagagctcg tccctccttc aaaattgtcg ccagtggcgt 180
 caagaagatc aagaccgaca agcccttcgg aattaacggc agcatggact tgagggacgg 240
 cgtcgacgcc tccggcagaa agggcaacgg atacggtgtt tacaagtacg tcgacaagta 300
 tggagctaac gtcgatggat acagtccat ttacaacgag aacgagtggc cagcgagtgg 360
 tgacgtgtac aaaggaggaa tcaccggatt ggc 393

<210> 10583
 <211> 301
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-017-Q1-E2-C12

<400> 10583
 ctactgaacg actgacgggg gacacgacat cgatacaaga ctagtttgat caacctgtga 60
 gaggtataat ggctgcttca gtgatgctat cttcggtgac attgagacca gctggtttca 120
 cagtggataa gacggcggt agaggattac cgtcgctcaa cacagctcgt cgctccttca 180
 agattgtcgc cagtggcgtc aagaagatca agaccgacaa gcccttcgga attaacggca 240
 gcatggactt gaaggaccgc gtcgacgcct ccggcagAAC aggcaacgga taccgtgttt 300
 a 301

<210> 10584
 <211> 445
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-017-Q1-E2-C2

<400> 10584
 attccccagt ccacgtatca taggcaactt ctgtccaatg agtggatgac atctgtccca 60
 acgatgagcc gacacgtatt tcctccagcc aatgatgatt ttacacgtgg aaaatcccca 120
 ttggtcgggg ctgttaacgg tttatcggat ccaaaacccg acccgatagc ttaacgacgt 180
 tccattacgg tggatgccac gtgtcggtea cccttgacga aatcactttt gtgacacgcg 240
 atttatcgtc atggaagtgc acacttctgt gatgataatt ttggtaaagt catggaacac 300

ttctacgata gcacaggtat gactatcttg attctgtcat aaaatcgtca tggatgtaca 360
 tgcacgacaa aaaaacgcga cctactgtga caaacacgta tcacacgga agtgtatttt 420
 tttgtagtga ttgtcccaaa taaaa 445

<210> 10585
 <211> 447
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-017-Q1-E2-C3
 <400> 10585

ttccctggtc cactccttgt atggctggac atattgctag cctactccag tcacgctac 60
 aatcggctgt tacagcagta tgttactttc ctatgatata atgatggctt gcttatatta 120
 ctctcaacat ttactgaaaa aatattcatg ctcataacat gcttttctta agattgactc 180
 caacttgata tgatgttgta ggcctcttgg tgcccctacc cttoctaata ccagaacctt 240
 tcaaagtaaa gtggcatggc agttgcaggt ggttactggc tcgatcagac aacggcgaac 300
 gattgatgat cgttctcacg taccggacgt gttgtttcgc ggaatacaat catagtcact 360
 gcaaaggtct ttgagcagga tcctagcttc tttgggcctt caggaatttt tgactggagg 420
 ctggtaagta gccttggtac acgctct 447

<210> 10586
 <211> 406
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-017-Q1-E2-C7
 <400> 10586

gatgagaaag attggttgtc acttggttgcg gtgcacagtg atgcctggtt gctagcagta 60
 gccttctact ttggagcaag attcgggttt gacaaagaat ccaggaagcg gcttttttagc 120
 atgataaaca acctccccac catatatgag gttgtcaccg gaactgcgaa gaatcaggtc 180
 aaagaaaaac accccaaaag cagcagcacg ataaataaat ctggcactaa gccatctcgc 240
 cagccagaac ctaactcaag ggggtccaaag atgccatcac ctccgaagga tgaggacgac 300
 agtggaggcg aggaagaaga gggagaagaa catgataacg cattatgtgg tgcgtgtaac 360

gataactatg gacaggatga attctggatc tgctgtgatg cttgtg

406

<210> 10587

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-C9

<400> 10587

tatgatgaat cccttcagag cgatgcagcc gcgagattgc cagtcacact tgctctcgct 60
agcttatggc tccgtagaaa ctatgctgat accgtcctgg tgagagttgt ggattcatta 120
ccagaagtgt atccgaaggt agagacttgg atcgagaatg tgggtgttga agaaggtaat 180
gcaacaatac ttacactctt tgtctgtctc atcacaattc tctatctccg ggaaagacaa 240
cgtagacaag tcgtcgttgt tgccgatcca gtggctgctg acgtggcaca accgctcgac 300
gctgatgtgg cgcaacacct cgctgcgttc ccacggtaat caattgataa tcgttttcgt 360
cattgtaata gcagagaata atggcttttt ggtgtgtttt tt 402

<210> 10588

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D3

<400> 10588

caccgacca cgatacgcat gtcatagcag gcgatgacct gacattaatg cagctgcaat 60
gatgaggggtg gctgcaaacg agaaggcaga ggctgataac attgtccaga tcaaccgtgc 120
cgatggtgaa gcaaaggcca agtacctgtc aggcttgggt aacgcacgcc agcgccaggc 180
cattgtggat ggccggacgg acagcgtcct gcgcttctca gtcaatgtgc ctggcaccac 240
tgcataggac gtgattgaca tggtgctaata caccagtagc tttagacta agaaagacgt 300
tagcgcgctc accaagtcct cggctgggtt catcccccat ggccctggcg ccgtgctcga 360
catctccacg cagatccgag atcgtcttct tcatgggcag tctgcctc 408

<210> 10589

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D4

<400> 10589

ccccatctac ctaatacgtc tctagagaaa cggttttgag aacatttttag aacgttccta 60

tccagttttt accatttttg ggatcctcgt atatggggtt tgactgtttt ttcattaatt 120

tttccctttt gtccttttag tttatattat gttaattttt ttccaatata caaaattttc 180

aaattttcaa aagttaattg gaattgtgaa acattgttaa tgatttccaa aatgtttaca 240

agttttcaaaa attgggtttt ggaattttta aaagttccta attttttcaa aaaatgaata 300

gaacttgta gaaaattttt tttacaaaaa agaacataa cctattccca attttaaaaa 360

agtgtttgaa attttcaaaa actgttgtgg gtttcca 397

<210> 10590

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-D9

<400> 10590

gggcgaagta ataagtcgta ataaccctaa aaatcttgcc ctctttttcg ccgccggcta 60

aagctatgaa ggtttttaat cttgaccgtg gaaacactct ctctgttttc ctcttctccg 120

gtgtcaccaa ctccaaggag ctcttgaatt caatgcttga cggaagtctg aagctggagg 180

tctcatttct caatgcatca cttattccag acatttttcc tctattggct gctgctcaga 240

aagcaattat ctccaaatca cgcgattcct tatcaaccag aactcttcat tctgagcttg 300

tctacaatta ctcaggatct aagcacatta cagaatcatt gaaacgatgt gggatttctg 360

agaacactac ttacattcta gctgcccggg tcaatgcttc tcccg 405

<210> 10591

<211> 390

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-F11

<400> 10591

aagagctttt gtatgtggtc gcaaagggtta gagaatacat attactttga agcaatatgc 60
 tgtgaagaaa atgtatgtgg aaacataaac ctagctgtta tatgaccatc ctgacttcct 120
 ttaggaagat attcaaagca gtgcaatctt tggtgcccac ctgccataac acatttcctg 180
 aggttctcat atttcctttc atgtcagaac aatatccaag aaatcgtaca atattcttgt 240
 gcttcgcctt catgagacac tcgatctctc ctagaaattt ttcctcgtgc atgtacgtat 300
 tgatatgtct ctctagaaa attttctctt ttaccgaaaa agggtttccc cccgctttgt 360
 atacagagca accaaccgaa ccatccaacg 390

<210> 10592
 <211> 435
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-F12

<400> 10592

gggtccactt ccacaaaat aatagccacc atctcatcga aagatcgggc ctctcagctc 60
 tatcaagtgg gatcagattt tcagggtgct cagtgggatt ttatagtttt tcgtagttta 120
 gatggagtct gttcttcata gctacagtct accacgaagc cacaaaaaaa ttatgggtgag 180
 ttcatcacat ccgagccagt ctgagccagt acataatctc tttagggttt tgcattgtag 240
 aatttgcggt tgcacgtcgc tgtctagttg ttggtcttag tgtctagtcc tttagagttt 300
 caagttatgt tcacaagtag tcacgccgcc gccgcatcat catcatcagc gctgccatag 360
 accagcatca acatcactgc tgccatatac catcacgctc atcacgctg cgatatagca 420
 catatccacc gccat 435

<210> 10593
 <211> 459
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-017-Q1-E2-F3

<400> 10593

cgctgccgn gtacggcccg aaattcccga gggccgagag gtcgtcaagg gcggcatcga 60
 gctcaaggac tcggccaagg tcgcggtatc gcaggaggcc atccacgcca agactaagaa 120

gtattatcct gctaggcaac ggctcaccct ccctgcacag cctggaaaat ctggaaagcc 180
agttgtcctc aatcaaaagg ccagcctatc ggaatactgc gagaagggtt ccgggtccct 240
gacagtggtc ttcaaagatt taggcccgc ggtctactac agcacgctct tcttctggga 300
atacgtcggc cctcttatca tctaccccat cttctattac ctgcccgtct acagatactt 360
tggatatgag ggggagcggg tcatccaccc cgtccagacg tacgccatgt actacttctg 420
cttcactac ttcaagagga tcatggagaa cttcttcgt 459

<210> 10594
<211> 375
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-017-Q1-E2-F9
<400> 10594

ggaagttgca gagaatctag cgagaccaat ggctaactctg gtctcgtctc aaacttacat 60
ctaccattgc catattagta aacaagctct ttatcaggca aaagaatcat actctcatcg 120
tagaatttcc cgtcataatc acagagaaag actcgatttt tctcatagaa accatagatt 180
gacaataact agaaagcagc aacctttgtc tttcaacacc gtgtgttttg ccgcagacga 240
gccctccgaa atcagtgtcg atgctagaat ccgtagtgag gttctgtctc cgttcagatt 300
agtccgtatg ttcttctacc tcgcctttat agcaagcggg tcattangag gactaatagc 360
cacttctagg ctcat 375

<210> 10595
<211> 450
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-017-Q1-E2-H2
<400> 10595

ttcccgagtc gacctcgtga ccctgctggg atatcgctgg taccctcagt aactgtgta 60
cgagatctac cgcgagttca accaggagat gtatcacgct aagggttgata tctatgatcg 120
gcagaacaac tccaccacg agttgcatgc ctttgagggt attggagtga ctgtcgagat 180

ggcagtacag gaggttgcct atgttgctat caccagcctc cgtagagggc atccacgctt 240
ggaggagact ggggttcagat acttcccgtc cccaccagct ggggatgata ctaggcggta 300
cactgctgtg tgtacccctt acgtgagccg ccggtacgac ccttagtata tggttcgata 360
caatgaggtt ctggatcgca ctgttcgagc tttgactggt gagctgtacg ccacgcgtgc 420
acgccactac gacactctgg agcagatgcg 450

<210> 10596
<211> 441
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-017-Q1-E2-H3

<400> 10596

ttcccggggc cacaaaattht gttccgacaa ttatgaacat tctgaagaga ctactgatg 60
agggggcagc gcccgagcc ccagagaggc agagagagac ggagctcaa ccaaggaata 120
atagttcaaa cagcaacgtg acatcagcag gttcctccag cttaacctct tcagagaatg 180
gacctgaata ttcaagcccg gtagcacaat gatgagtga tccctagctt ttagctgaaa 240
gctttgtagc tgcaacggtt tgagcctagg agattgaagt gccttgcggt ttttgtacgc 300
tcgcttgccc ttcccaacct gatgtatgaa aattatgtgg aagagtccac agctgttata 360
taagggattt tggggctggg aatcgtttgt aagaaacatt gtagaataac ttctgtttca 420
cttttatttt tgtaatatct t 441

<210> 10597
<211> 154
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-A10

<400> 10597

ccgggtcgac agcgaagacg agggctcggc atcgatcaatg aaaatatgac acaccgcaca 60
tgtaacattt actgtacgat tgaactgtgc tttcttagac ggagatcaat ctttgtacag 120
tgatgttaga atatcacttg aagtgaacat ctca 154

<210> 10598

<211> 417
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-018-Q1-E1-A3

 <400> 10598

 ggtcgacgct cgtcatgaaa ggtggaagca aatgcaagtt cataccaaaa gatcgtaaac 60
 aacaatacca acttgccggac gacaaggtag tacaactacc aataccaaac tactcctggc 120
 cctagtgttc gtcgggtaga aaatcttgca gaggaccagt tcccgtcct tctcttgctc 180
 cagggtccccg atgtggtact ggtgtatcac ccagttgggc ctctgctggt cgaagttctt 240
 gttggtgtgc agcgccagaa ccttttttgc tgcccgtctg ccggccgttg accatcacag 300
 gcaaggtatt gccggtcttg tgccacatcg cgtgcgtgcc gcactccgac tgtatctcgc 360
 gacacgtcca cgtgcccctt ttgatcgccc tggaagtgcg ttggaagaaa tgcttcc 417

<210> 10599
 <211> 443
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-018-Q1-E1-A5

 <400> 10599

 actcgcgggt cgacaggga cctatactg agtctcacga ttttgttgtc atcgcacgca 60
 acataagatg gcaccgcatt tgattcattc ctttcggaa agatatatat agtttaagag 120
 atgcaacaag gagcggctag cactataaac ttaagatatg atgatatata tggcacctca 180
 ccttggtggt ttcgccaaga acaaagctgt gaggctggcc ggtgaccatg gttgctactt 240
 ccgcccacaa cacacacttt ccgtcctgaa cccatccaag atttttctcc tctcctgct 300
 gctgctgctg ctgcgctttt gacagcaagt cgctcacgg cggcaaatcc aggtgagctt 360
 gaaccatgct ttcttctaag tgcggatttc gtttcttctg ctgcgttcca gcccctgctg 420
 cctttgtttt tccgtgtgcc gtt 443

<210> 10600
 <211> 402
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-018-Q1-E1-B1

<400> 10600

gtcgacgaca ttgtcaatct ggggcccgt tttctacaca atatgttccc ctttgagagg 60
ttcatgggag tcctaaagaa atatgtccgt aaccccgtta ggccagaagg aagcatctcc 120
atggggccatc aaacagagga tgtcattggg ttttgtgttg acttcattcc tgtccttaag 180
aagatagggtc tccctaaatc gcggaatgag gggagactga ctggaaaagg catgctanga 240
gcggaactcaa taatatgcag ggacgggcat tcttgggtctc aagcacacta cacagttcta 300
cagaactcta ccttgggtgac accgtatgtc gatgaacata agaacagtct gtgggtccaaa 360
caccgggagc agtgcgacga ctggattaca tgtgaacaca tc 402

<210> 10601
<211> 419
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B10

<400> 10601

tctcccgagt cgtccgcctg aatgagtcag tatttgtaat agagatggga cttctgaagc 60
tggaaaatgc ctacaagttt cccaacctgc gctgccgggg gtgggcgtgc agaaccaagc 120
ttccatccaa cacagctttg cgagggtttg gctttcccca ggcagggtg atcaccgaag 180
cctgtatcac agaagtggca gccaaatgtg ggttgcccc tgagaagggtc cggatgatac 240
acatgtacaa ggaaattgat caaacaccct acaaacagga gattaatacc aagaacctga 300
cccagtgttg gaaagaatgc atggccacgt cttcctacac cctaaggaaa gcagcgggtgg 360
agaaattcaa ctcggagaat tactggaaga agaaggggct ggcaatgggtc cccctgaag 419

<210> 10602
<211> 433
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B11

<400> 10602

actcgcgggt cgacgcaacc ctggaacatt gggcacagat caggcagctg atgagatcaa 60

aagcattgct gccattcttt gacagtgttt atcaaggatt tgcaagtga agccttgaca 120
aagatgcca atcagtgcgc atgttcgtcg ctgatggagg tgaattgctc atggctcaaa 180
gctataccaa gaacatggga ttgtatggag agcgtgttgg tgctttaagc atcgtttgtg 240
ggagtgtga tatagctgtt aagggtgaaa gtcaacttaa gcttgtaatt aggcctatgt 300
attcgaaccc tctcttcat ggtgcttcta tcgtggctac cataactaag gacagtgcga 360
tgttcgacga atggactctg gagctgaagg ccatggctga taggataatt agcatgaggg 420
agcagctttt taa 433

<210> 10603
<211> 348
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B7

<400> 10603

acacatggag gctgtcatgc tcgctgcact cagtcacctt gtgactgtgt ggatcactgg 60
gcggtgacta gctgcaattc acgaaggcat aacattggca ctgagttgga cagaattgga 120
ccttgtggta gagagcgatt gtgcggatgc gctacatttg atctctgctg tggggaaaga 180
tcggtcagct cacactcata aagtcatgga gattagatcc ctgctagctc aagaaagaag 240
gatccagtta cagaagatta agcctagtgt aaatctcgct agccacactc tcgcccattt 300
gggacgtact caacagcgga ctgctgttta gctgcgtaac cctcccga 348

<210> 10604
<211> 443
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C11

<400> 10604

gcacaggact aggactcgcg ggtcgacacc atcccataac atgcgaccta ctatttcggt 60
gctctgcgtg ctcggtgtga cgacgacgag gtgcgcaagt gggtagacct taccggtatc 120
gagaacattg gcaagaagct tgtgaactcg cgggacggac cagtgcacct tgagcagcca 180
aagatgacag tcgagaagct gctagagtac gggcacatgc tcgtccagga gcaggacaat 240

gtcaagcgtg tgcagcttgc tgacacctac atgagccagg cagctctggg tgatgctaac 300
caggatgcga tgaagactgg ttccttctac ggtagaaca ttctccatac acaccacca 360
tctcttgctg cataggagga ggtaaagggg cacagcaagg tactttgcct gtgccggcag 420
gatgcaccga ccagactgcc aag 443

<210> 10605
<211> 391
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C12

<400> 10605

gaggcgtatg acgccatcgc cgtcagggt tgcacccgc agccgccagc ggcactcaag 60
attgacgggg tgctcaaggc gctgagcctg gcgtcccaa gcccaagagg tggcttctcg 120
gataagccta tgtacaccga gaagcccacc aagtacgccg gcagcccgat gagcgggtggc 180
gcaccgcgct tcagccacca gcctcgctat gttgggatgt caagcttcaa gaatcgagca 240
aatcctgcgc ctgcagtgat gcattgctct ggctgccgcc gccgtctcat ctttcaagtc 300
ttcttctacg agtagtaagt aatggtgtcc gtttgtatat gatattaagt acgtacaaat 360
gaaatgacct aagaaaaagg caacaaaatg c 391

<210> 10606
<211> 444
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-018-Q1-E1-C4

<400> 10606

ggteganaca ttagaccttg taaaaccacc gaacagcaac tgataatatc catacaaaaa 60
aagacaacct gacctgatac tagctcactt aaagaaggga gcttctgcct gtcacatacg 120
cacacatact atctcttgta cagtgtatat atatcacaat atgtaaaatg gtagcagtga 180
gttggtgaga catccagcac gtttgtttct tgatgaagca cttgtcgagg cgcttcaagc 240
cttgttggca atgttggttg agagccagtc aagtcctctg tacaaccctt cgccagacgt 300

cgcacaaagtg ctctgaatgt accagtgccg ctggcgcaag gagtgcagac caagcttgct 360
 ggtgatttca gcagcattca tggcattagg aagatcttgt ttgtttgcaa atacaagcaa 420
 cacagcatca cgcagctcat cctc 444

<210> 10607
 <211> 444
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-018-Q1-E1-D2
 <400> 10607

ttcaagggctc gacagagttc tacaacttca actctcagcg gccgagcacc cgctattggg 60
 tatttggccc cgtcaaattt gaggtgttct tgcctgacct taacacttgg tttctgtatg 120
 atacatcagt gctctttgag gcaaaagttt ctcgaccaca catgtttata gatggagcat 180
 tgtatgtgca cacaggtttg catgacattc tggccttgga ggaaactagt tctggcattc 240
 cgccgtctct tccgactatt aagttgccgc atgaagatgg tgcctttatg ggtaggtttg 300
 gccaatgttg ctttggccaa ttttcggggg gcttgacta tgcattgcca gaggaggatg 360
 ctctgtacgat tcttgtttgg agtcttgatg ttgatgagcc ttatgagtgg agcctcaagt 420
 aacgcctcaa tatgagccaa gcat 444

<210> 10608
 <211> 440
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-018-Q1-E1-D3
 <400> 10608

cacgggtcga cgagattgtc aacctgggtc ccgtatatct acacaatatg ttcccccttg 60
 agaggttcat gggagtccta aagaaatatg tccgtaatcg cgctaggcca gaaggaagca 120
 tctccatggg ccatcaaaca gaggatgtta tccgggtttg tgttgacttc attcctggcc 180
 ttaacaagat atgtctccct aaatcgcggt atgaggggag actgactgga aaaggcactc 240
 ttggaagaga ctcaataata tgcagggacg gatattcttg gtctcaagca cactacatag 300
 ttctacagaa ctctaccttg gtgaccccgat atgtcgatga acacaagaac agtctgtgct 360

ccaaacaccc ggagcagtgc gacgactgga ttacatgtga acacatcagg actttcagca 420
gttggttgga aacacgtctc 440

<210> 10609
<211> 446
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-018-Q1-E1-D4

<400> 10609

ggtcgacgat gctccggtag gaacagcaca acatcatctt tctcataaac aacggggggtt 60
acaccattga ggtggagatc catgacggcc cttacaacgt catcaagaat tggaactaca 120
ccggcggtgtt ggaagcattc cataatggcg agggcaagtg ctatcaggcc aagggtccgaa 180
cagaggagga actgaagaag gcaattgagg catccctagg acccaacaag gacagcctgt 240
gctttataga ggtaattgtg cacaaggatg aactagtaa agagcttctt gagtgggggtt 300
ctanggtttc cgccgcgaat agccgcccac caaatcccca gtgacacatc aggtctccac 360
aagatcctca tccagcttaa tgatgtcatg tggaagttct gaatagatgt tactgttctc 420
tgaataaatc atccatttga gtccat 446

<210> 10610
<211> 425
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E1

<400> 10610

actcacgggt cgacgtaca ccctaaaatg aggcattcta ggtatctacg atgagcccat 60
gactcctggc cagtgcattt tggctgtgga gaggctcggc gactacctgg tcgagcaggg 120
tttctaagcc cgccctgata tgctgttatt ttggctgtct gggactaagt ttgctctact 180
gtgggctttg catccatctg cttggcgtac cgcatgatat atgcagtga taatttttagc 240
ttggggtttg tcggttggtg atgtgtcgaa ggggaaaaat ggatttacta tgttttcttt 300
ttaatgtttg gcatcgcgtc gtatcaaact cagccgctct ttcgctgagt aatgtacatt 360
tgcttggtca tggttaactg tgggttctgc tgctgcttta ttgaaagatg attgcaattt 420

tagct

425

<210> 10611
<211> 443
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E2

<400> 10611

ggtcgacgct gtcgcgcgcg tccggtggtc tgcagtacat gggacatact acccgcgatt 60
gggtaaagaa gcaagcacgt aatagagcat atctcttgag cattctgtcg gtaattattc 120
cctgtttgat gagatgagtt tgcatttgtt ctaaaaatgt tggaaacaga agtttgccag 180
agaagagtct gaagatgatg tcaagaaact tctggatttc tttaagaaaa tgcagaagat 240
aaaccagag ttcttctatg attaagaagt tgatgcagat aaccgtgtaa gaaatgtctt 300
ttgggtgaac acaagttgca aaggatcgta tgaagatttt ggagactgcg ttacatttga 360
cacgatgtat aaaactaaca aattccacat gccgctggga gtctttgtgg ggggtgaacca 420
tcattctatag agcaccatat ttg 443

<210> 10612
<211> 433
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-E6

<400> 10612

acgctaaacc ctaaattgag tcctattact acaccaggc cattgaggcg gggccggcca 60
ccgcggaact ctacgccgac cgagcccagg cgcacatcaa gctgggcagt tacactgagg 120
ctgtatctga tgccaacaaa gcaattgaac ttgatccttc gatgcataaa gcataccttc 180
ggaagggctc tgcttgcatt aagctggagg aataccaaac tgcaaaggct gctcttgaag 240
tgggttcttc atatgcatct ggtgactcga ggtttactcg tctgatgaag gagtgtgatg 300
atcgatttgc tgaggaggct agccagggtc cagtaaagaa tgccgctgca gctgttgctc 360
cagctacatc ttcgggggca tcttccgggg ctacaactgt ggctactgaa gttgaggaac 420
aggatggtgc aaa 433

<210> 10613
<211> 442
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-F11

<400> 10613

gcacaggtcc gaggactcgc gggtcgacac tccacgctac agtgattcga cataaattct 60
ttcgcaccca gtcggagttt gcggaaatca tccatcaaga tgtccttcgt acctcggggc 120
agttctacct cagaaatcaa ccgtccaaca gtgacatcga cacaatgcta caaatgcagg 180
atgacaacgc ccgttctttc atgactccca cgatagacgg cggcttcac cagcgtccgg 240
tcccttgagt cgagttgtct agttctgaaa catcgattgg ctcatgttgt aattaaactt 300
taatgaactt gtagtatgtc tctttggttt cgagagtcgt tcaacttaga tgtaatcgat 360
gctattaatg tcttgctttt ctcttccgat cgttctgtta catacttata tattgcttat 420
gtattgtctg tgaattggta ct 442

<210> 10614
<211> 447
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-F2

<400> 10614

ttcaagggtc gacttccacc agtgagatat ccatcatctc atcgaaagac gggacacctt 60
tgccctctac aagtggatc agatttccag gttgctcggg gagattttac agtttttcgt 120
agtttagatc gagtctgtcg tcatacctat agtccacgaa aaagccacaa gaaaaattta 180
gggttagttc atcatatccg aaccaatctg agcctttgca taatcttttt agggttttgc 240
tttgttgaat ttgcggttgc atcgtcgggc tagttgctgg tcttagagtc tagtctttta 300
gtgtttcgag ttctggatc aagttgtcac gccgcgcgcg caccatcatc atcgcccttg 360
ccatctacca ccaccgtcc gaatccgtat ccatatacca ccaccaatcc gtgtccatat 420
accaccaccg atccatatcc atatact 447

<210> 10615
 <211> 376
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-F5

<400> 10615

cggaacgact ttaatgcctt cccaccaaca caagcttggt cgtgtttggt cttattccgt 60
 gagttccttg ctatccaata actgttattc tttacattgg tacattaaaa tcacttatgt 120
 cctcaatggt gtgataaatt caccatcctt acgaattctt gataccagtg agacttagta 180
 tcatcaccac tcgttgcttg gtcctcgtga tgtttctaac cggaataccg acacatgggtg 240
 tgtgatgtgt agattctaaa ctttgagcaa tcatcttggt ctgaagttat tggcttatag 300
 tttcactcta cgactatggc atattgaatc aacattctga cattggctgt gcaaggcaga 360
 ccatatttag ggcgca 376

<210> 10616
 <211> 445
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-G2

<400> 10616

ggtcgacagt gcacccgaca gggcgccgga gcaccgcaag aacgccacca agtttgtcaa 60
 ccaatgcgga gccattgtta gagacaacgt ctcgatcacc gtccaggagt ggaataagcc 120
 aaagaaggca cgaattgctg gtttcacttt tgtcgataag agaacaaaaa aagattgctt 180
 caagaagctt atggaacatt tcgttctacc tccggaatac aacaaattcg atgaggaggg 240
 taacaagatt gaggaaaaca aggagaggag gaggctagtc aaacagttcg ctcttcataa 300
 gatggccgac gcattccgga aattcaagca aaatctagcc catgactttg tcaagcagaa 360
 caagactccg gatttcaaag gacaatatga gaaactgaaa catgattggc cacaatttgt 420
 gaagcaaaag aaatcggagc agttc 445

<210> 10617
 <211> 446
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-G4

<400> 10617

ggtcgacgct tcacctggtg ctgcgcctcc gcggcggcag cagaggtgga tacccaaga 60
accttgagcc caacctccgc atccttgctc aaaagtacaa tgagaacaaa ctagtctgcc 120
gcaggtgcta tgcacgacta cccaccaggg ccaccaactg ccgtaagaag aagtgtggcc 180
ataacaatca gctaagggaa aagaagaggt ttatgtccaa gtttgccaac gcttcctaaa 240
cgttggaaat atgctgaatc aaccgtctag cgtcatatat attggagttt aagttctgtc 300
ccttgtttga agtcatgttg gatttcgctg aatcgtctag cgtcgtcata tatagtggag 360
tctaagattt gtccagttga tagtcctgtt ggattttgaa cctatgtatg ctttggaata 420
tattatctat caaatatcct gatttg 446

<210> 10618

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-G6

<400> 10618

tcccgggtcg acagatagtg ttcattcttc tctgaatgga ttcattggcat agagaagaag 60
ttcctggcgc aaggaaacgg atggggatgg cctccttcac cgggggtcgaa caccgggtgtc 120
gatggagcac catttctttg caaagtgttt tcgagagaac aaggaaggga gaggtgtggag 180
tttatgcggg gtggaagagg aggtggaggt gcacaaaaag gaggggctgc agtttttggga 240
aactgatggg atttatggga aagagggatg gctgtttctc ttcgttaggt gtggctgtac 300
gtttcttcgc tgtgtgtctg tgtgtgtaga gggagcggag ggagcggtag agaaggaaga 360
ggaaggagaa gatgcgctgg gtgggaggaa aaggaagtgg agagaaatag acgaaggagg 420
aattaaagga 430

<210> 10619

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-H4

<400> 10619

gtcgacagcc ggtggtaaatt ctggtgatag ctcccctaatt aagctcgaat ctttccctga 60
tctggagggtt ctccgtcgcc ttgttccatt tgtccgtcgc tgcgtggag atggggacag 120
aaagtggaag aggtggagcg caagtctgtt tgcattgggt ttgtgcatat tctcatcggt 180
gcttggagtg gagctacggc gccactgga gctgccggtc tccgacgcct ccccggtgac 240
ctttctggcc gaagggcggc ctggtgaagc catgctgact ttgtttcttc ctctggctt 300
gatgccattt gagaggcagc tgttcaactt caacatggag tcctcttctt ccatctttgt 360
ccggagatgg agtagcggcg gtccggtgat cccaagtggc cacgtcctcg gtgatggcg 420
gactggatct acgtggag 439

<210> 10620

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-A10

<400> 10620

cgggtcgact gctacctctt gagcactgcg ttggttttcc cttgaagagg aaagggtgat 60
gcagcaaagt agcgtaagta tttccctcag tttttgagaa ccaaggatc aatccagtag 120
gaggccacgc tcaagtcctt tgcacctaca caaacaata agaaccttgc aaccaacgcg 180
ataaaggggt tgtcaatcct ttcacggcta attgcaaaag tgagatctga tagagatgat 240
aagataatat ttttggattt tttatgataa agattaaaag taaagattgc aaaataaacg 300
gcgaaagaaa tagcttggtg acggaagatc aatatgatgg aaaatagacc cgggggcat 360
aggtttcact agtggcttct ctcaagatag cataagtatt acggtgggtg aacaaattac 420
cgtcgagcaa ttgatagaat 440

<210> 10621

<211> 433

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-019-Q1-E1-A11

<400> 10621

atTTTtggtaa ggtgtgtata cacgagataa gtgtggcatg tctaccttga tgtgttgaac 60
cttcccatca ctaggccatc cgagaatgac acattgggtgg agtgatggat aaggctccgt 120
tcgtttcaga aagatgacaa aagagggttc aactcctaga tggcatgcat agcttagtga 180
tacgtccatt ttgcatcatg cttttatact gatatttatt gcattatggg ctgttattac 240
acattatatc atagtactta tgcctattct ctcttatttt ataaggttta catgaagagg 300
gagaatgccg gcagctggaa ttctggattg gnaaaggagc aaatattaga gacctattct 360
gcacaactcc aaaagtcncg acacttcaca gagcttatat ttggaatata taaaaaatat 420
tgggcgaaga aag 433

<210> 10622

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-A2

<400> 10622

gggtcgacga aggacatgaa gacggcgaac gaggacgggg gaatggtata gaagtcagca 60
cgaacgaaga gaattatttc accccttcat gcgtcacctt aagtgcgacg gagatcgatc 120
aattcatcaa gtgccttatg ggaatcaaag tcaattccgg ttactgtggg aagataagca 180
gatttctaga cccccaagaa taaaagcttc aactggatga actcacatga ctgtcacgtg 240
atgatgacat aagtactcct ggttgccatt agatggataa tggagaagca catccatgac 300
atgcctaatz gtctctgcaa catcttcgac attaactctc gatagtccat aattgtgaag 360
cagctccgaa tgctatacga agagatgagt gtcataatac gtgagcttga catgtacgta 420
ctgcccgtta 429

<210> 10623

<211> 450

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-019-Q1-E1-A3

<400> 10623

attcgcgggc cgacctccca agcaagtcac catctacgtc gatagatggg acgcctttgc 60
ctctatcaag tggatcaga tttccagggtc gtcgggtgag attttacagt ttttcgtagt 120
ttagatcaag tttgtttctt atacctatag tccacanaaa aagccacaaa aaaattaggg 180
ttagttcatc atatccgaac caatctaagc ctttgcataa tcttttttagg gttttgcttt 240
gttgaatttg cgggtgcatt gtcgtgtcca gttgctgggtc ttagcggcta gtcttttaga 300
gtttcgagtt ctggtcataa gttgtcacgc cgccaccgta ccatcatcat cgcccctgcc 360
acctaccacc accgctccga atccgtgtcc atataccacc accgattcgt atccatatac 420
taccaccgct accaacaccg ctaccatata 450

<210> 10624
<211> 454
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-019-Q1-E1-A4
<400> 10624

ccgggtcgac tgccacaaa acgatatcca tcatctcatc gaaagacggg acacctttgc 60
ctctatcaag tggatcaga tttccagggtt gtcgggtgag attttacagt ttttcgtagt 120
ttagatcgag tctgtttctac atacctatag tccacgaaaa agccacaaaa aaaaattagg 180
gttagttcat catatccgaa ccaatctgag ctttgcata atcttttttag ggttttgctt 240
tgttgaattt gcggttgcatt cgtcgtttct agttgctgggt cttagagtct agtcttttag 300
agtttcgagt tctggtcata agttgtcacg cgcgcgtgc accatcatca tgcgccctgc 360
catctaccac caccatttat ccgccaccgc tttgaatccg tatccgtata ccaccacagc 420
tgtcatatac caccaccact gccatctacc acca 454

<210> 10625
<211> 429
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-019-Q1-E1-A5
<400> 10625

gacctcccag gcaagaaacc aaactgattt ttggtcacgc ttgtcattct tcttaagcgg 60

tgctcaatga ctctctccca tagcttcatt gtatgggtca tcagcttaat tccacggtaa 120
 ttagtacaac tctgaacatc ccccttggtc ttgaagattg gtactaatat actccgtctc 180
 cattcttctg gcatcttggt tgcccgaata atgaggttga aaagcttggt tagccatact 240
 atcgctatgt ccccgagacc tttccacacc tcaatgggga tacaatcagg gcccatcgcc 300
 ttgcttcctt tcatectttt taaagcctcc ttcacctcag actcctggat gcgcccgcaca 360
 aaacgcatgc tgggtctcatc aaaggagtca ttcagttcaa tggtagaact ctcatctccc 420
 ccattgaac 429

<210> 10626
 <211> 436
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-019-Q1-E1-A7
 <400> 10626

gaccgacaag acgacagaag gggagcgatg caaggtatct tggtgatact ctgaagctta 60
 aagttgcca gggagttggt ggggcggtag ctgacaaaag ttctgttctg aagtttattc 120
 cgtatacaat gcagtctggt aagcaaggat tccaagatct tggtgcatcc tctttgcagt 180
 cagctcaaga tcttttacga tcggagactc ttagattaga tgtgatgacc ggcgcgcgtc 240
 aagtagaggg agggatccac aggetgatgt catacgagaa taaatcattc tagcccccat 300
 ctttgatcga cgacgggcat acaggttctc tgcgtgtggt ccatccaatg tcggcagccg 360
 gtcacctgat attgtttgag agcagcctct cagcccgtct gtgagggccg ttcgctcccc 420
 tatcgatcta ccacta 436

<210> 10627
 <211> 392
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-019-Q1-E1-B1
 <400> 10627

ggtcgacatt ctccacaatt catacatcct atgtgaacca agcccaaaag catatgcgcc 60
 gtacataccg tgctcatgga cgcacatc cttacatgtc caaccctgc cacattgagc 120

tgatcttgtc atagaaggaa gatcctgtga agaaggaggc tgacaacgtc gtcgcaccaa 180
 ggaaagctat ctaagctaac ggagtggctg cattcgtcca agaatcttag atgtagttct 240
 tctcaagtat ctttgttggc agtgtttggt gcctccttga tgtttttggt accaacaatgg 300
 agttaggatt tgttaagggt gatgctatcc ttgtgatcgc cagtggctct tatatgcgaa 360
 aacagtttca gatatttgag cattagccca tc 392

<210> 10628
 <211> 426
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-019-Q1-E1-B2

<400> 10628
 gggtcgacac ggctcacaac gtcactgcat gcaaggatac cttccgcggg cgtgtttggt 60
 agtgccttat tgtcaaagggt gtaaaattcg tgggggatgg atataccaac tgtgaagctt 120
 ccggtgttgg taggtgtgag atcaacaatg gaggatgctg gaaagaaact aagaatggga 180
 agacaatatc tgctgctcg catgaagaat ctgaaggttg caaatgtcca caaggtttca 240
 agggcgatgg tgtaaaaagc tgtgaagata ttgatgaatg caaagcgaaa tctgcctgtc 300
 agtgcaatgg ctgcagttgc gagaatacat ggggaagcta tgaatgcagc tgtggtggta 360
 acaacatgtt atacatgaga gagcaagaca cgtgcatcag canacaagct gcctcctcag 420
 tcggct 426

<210> 10629
 <211> 454
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-019-Q1-E1-B3

<400> 10629
 cgggtccagct agtccgggtc gacaaagaac atgagctatt gttggctgca agggcttcaa 60
 gggttgaaaa ccaggatgcc attgatgctt gcatgggttg tatgctgctg atcctaagga 120
 ggcaagagct ggcatacangg aagtgcactt cttgccattc aaccaactg acaagaggac 180

tgctctgact tacatcgatg ccgagggtaa ctggcaccgt gccagcaagg gtgctcctga 240
 gcagattatt accctgtgca actgcaagga ggatgtgaag agaaagggtgc actctgtgat 300
 tgagaagtac gctgagcgtg ggcttcgttc gcttgctggt gcaagacagg aagtaccaga 360
 gaaatccaag gattctcctg gtggaccatg gcaattcatt ggtctgttgc ncctgtntga 420
 tcccccaagg catgacagtg ctgagaccat ccgc 454

<210> 10630
 <211> 443
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-019-Q1-E1-B4

<400> 10630
 gggtcgacct tgaactttgt gtacatgccc gtggacacga tgtaaattctt atcattaata 60
 cttctttcaa tttaatattc cttttataag tgcattctat atctgggata tgcctttttg 120
 caatcgtggt tccggccatg ttctccttta aataccgttt ctctgtgcaag ttttaagcact 180
 tgtcttctgc agagcaatac cctagtccaa ccaatacttt gatctgtcat cgagtgttac 240
 actctggtat gtcgagatta tctgtggaact gcataacttc ttatggtttc ttcattgaact 300
 gttatttctc accaattcca attttctctg gttctgggtt gtcgtcaacc gagaacacca 360
 aatagtgaat cgagtccgca ctctgattca ataactcgaa gtaattttctg ttgcttatga 420
 gtttaataat cttcaattc atc 443

<210> 10631
 <211> 432
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-B9

<400> 10631
 gggtcgacga ctacaccaaa agattccgaa gatactcttc ggtgttctcc caagaacatc 60
 tgcctcatgc ctttgcaatt ccctaccacc ataatactct tatggataac tacgacatac 120
 acttgccatt catacaatca ttccccgttg atcttggtat tacaagatac cccgaatttc 180

tctctattgt tccgagaata cttgtaccta gtgccttgta gttccttgcc acggaaatac 240
ccctatggac aattccttgc acttatcgag tattcgatca tccccggtg atcgtgtgtt 300
tcacaaaagt tttcgaaata tcattcggtc ttccgaaaat cctgagcagc ctatcgctct 360
tgagattctt gcttgcttgc attatggtta atcccataag tctagtaatc ttattggcac 420
cctttgtcac ta 432

<210> 10632
<211> 402
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-C1

<400> 10632

catggcgtct tccaactccg gcggcatccc catcaaggcg gaacaggatt cggatggctc 60
ggcccacagc acagctgata tgactgcttt tgtgcaagat cttctaattc agatgcaaac 120
caggttccaa actatgtcag agaacatcat tacaaggata catgaatatg ggtgcaagaa 180
tcgatgaatt ggagctgagc atcaatgacc tcaacgctga aatgggcagc aatgggatga 240
cccctactaa agtgaaggac gaagaatcaa agccagcata cagctctgcc tgatttaagc 300
ataagtagca gaagcaagtc gtattagtct tgggtccatg tcaatatcat cagccattca 360
tcactaactt agtgcattgt atgagatggt attcgcactg tt 402

<210> 10633
<211> 280
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-C2

<400> 10633

gcggttcgac actcaaccct atacctgcgt cgttacgaca ccaacttcgc ccccggaagc 60
taaatgtgtt tagccgtccg tccgtccgtc cgtccatcgg acgagatatg catgtgtact 120
tgtacgtcgt ggatcaacgt gtagctgcac gtactttgtg tgtttatttg taccatgata 180
gagcgagcga gaggtcctct cgctagctgc gcgcaatgta aattaattaa gcacaaggcg 240
tgcacgaggg aatggatgga agaatcgtgt gtcattactc 280

<210> 10634
 <211> 423
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-019-Q1-E1-C3

 <400> 10634

 actcaaataa gtattgagtc gattgtcaac tcccccatga ggcggctggg gcggctcgtg 60
 caggggtggct gtgcgcaagt atcagggcag aggaactggg tgtgcggggg ggctgtgtgc 120
 aacgtttacg acacatcatc aacgtttag atatatgtgat agtgctcgcc aggaaggtgg 180
 ctttggctgt ttcattgtatc tatttggtaa ggctttgtta gatagctaca tataaaaaca 240
 tatcaatccc acgcaccctc tcaccactag gcaaaagaat ttcaacatgt gatactagag 300
 caccaatata gtacatgcaa ccattgacct acaaaatttt cacacataag tatgagttga 360
 ttaatagata acacagaatc ctaccacgaa aaaccaccca caacacggca ttattaaata 420
 aaa 423

<210> 10635
 <211> 419
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-019-Q1-E1-C4

 <400> 10635

 caggtctagt actccgggtc gacgacttga acgaggtggg ggaagccaat aaggaagacc 60
 gtgtgaggaa agcaatggag gcccaaaca tcattacca agaactgaaa cggttcgagg 120
 catggaggga ctactggag acggttccga ccatcaaaaa gctgaggtcg tacgccgaca 180
 ggatcagggc atccgagctc gagaagtgtc tgcagaagat cggggaagac aatctcaaca 240
 agaagatgag aaggtccatc gaggagctga gcacgggcat agtgaacaag ctccttcacg 300
 gcccaactgca gcacctgaga tgcgacggca ggcacagccg caccctggac gaaacgcttg 360
 agaacatgca cgccctcaac agaattgtca acctcgacac ggagaaggcg gtccttgag 419

<210> 10636
 <211> 422
 <212> DNA

<400> 10638

cgggtccaca tctcagacaa gactcacgac gcgtaccggg gcttcctcaa ctacatctac 60
ggcgacctgc acagcgagga gttcctcgcg caccggctgg cctcctcgg cgccgccgac 120
aagtacgaca tcgccgacct caaggaggcg tgcctcgaga gcctgctgga ggacatcgac 180
gcccggaaacg tgatcgaacg gctccagacg ggccatctgt accggctgca gaggctcaag 240
gacagctgca tcaggttcct cgtggacttc aggaagggtg acgagatgca ggaggagtgc 300
agcgccttcc ttcagacggc ggacagggac ctggtggctg aagtgtttca gggcgttctt 360
gcggcgtgga gtggccgggtg agccagtggc gtagctagcc caacgtgccg ggggtgtcca 420
tcaatgc 427

<210> 10639

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-D12

<400> 10639

gggtcgaccg ctgaatatag atgggggaag gtgatgaaga tgttggtgaa gatgatggag 60
ttgttgagat agatcgctgt cacacaatga ttaccccggc ggtgttccga cgccaccagg 120
agagaggggg agagagcccc cctccttctt cttccttggc ctaccccta gatgggagga 180
gagttcccc tctggtccat ggcgtccatg gcggtggagg ggcaggagcc ccttcgagat 240
tggatctccc tctctcttcg gttctatttc cgtttccaca gatctggcca aaaaccgttt 300
cttaattatc cggagattcg taactccaat tgcgctgaga ttttaacatg atttttttcc 360
agatataagt ttccttgccg ccgaagtaga tctccaacga acgtacgagg agggcacaac 420
ccaccaccat gcgctggggc tg 442

<210> 10640

<211> 148

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-D3

<400> 10640

tccgggtcga cggccgcttt tattatTTTT cttattattt tttttttcaa aatgaagtgc 60
aagccatgga attaccttct ttgttacaat gagctcggct tctattgcat ccacgcggcg 120
gacagcggca ttaagcagct cttctttc 148

<210> 10641
<211> 449
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-019-Q1-E1-D4
<400> 10641

gggtcgacct ttcaggccaa aatggagtgg tactcttggga ttgatatttc agcatgctgg 60
tgctcgtgat gacaaaggca accctatgat cagagatttc tataacagcc aattaactgc 120
aagcggcaat ccttatgatg acacgttact tgctaagctt gaaagtgtct acacagactc 180
tggagaccat agctctacaa tgtttgTTTT caacgtcgag caaggtctgc ccattcttcc 240
ggagtggctt agtttcaaca gagtgcagc cgtttgaga cagagctatg aaattggtcc 300
tgcccgactt cttctaagtg cttctggagg tcatgtggag gggaaactttt cgcctcatga 360
agcatttgca attggtggga caaacagtgt aagaggatat gaagaagggtg ctgttggttc 420
tggccgctca tatgcagttg gtagtggtg 449

<210> 10642
<211> 443
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-019-Q1-E1-D6
<400> 10642

cgccgggtcga cgacgaccgc aacacctgct cgagaccaag aatcgatcac aacatcactt 60
tgcaaaagag atcgctgctg tactttcctg acagcgcggt cgattacctt atcttcttca 120
tcgactgcat cttcaactct acctccacc aaccgaatag catctaccg atcagctgcg 180
aaggctttga tgctggctct cgtcctggac tatecttctg gcttccgat gatgcagtgc 240
ccaccggcaa ctgggtgcaa gcgtgcaacc aagtcataca attgcctgtg cacaatacgc 300
gcgagatcaa cttactgac cctggatgga caaacgggag tggatatgcc agtggtcttc 360

gtcaggaatt ccagctggga tggaacgaga ggcggaatga cccggcatgt atccagtgcg 420
agggatccaa tcccaaggga cag 443

<210> 10643
<211> 419
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-D7

<400> 10643

ggtgcgatct gtagctatct aatgctcggg cgggaaaaaa ataaaacaca tacgggctaa 60
caaataaaac gaccggttcg atctaacta actaaaccga gaataaaccg taactaaacc 120
gatctactaa aaaacctaac tcttggttag atctaactctg gagcggttga tatcgatcta 180
gcggatgaag gggaaggtgg cttacagata cggtggcgac gtacggaggc gacggagcgg 240
cggtcagcgt cgaacagggc ggcgattccg gtggtcgcgg gcgtcgggtgg agtggctgaa 300
cggatgcagt aaagcgaggg cgtcgcgggg gtgggtggagt tcgcgcttgg agatgacgga 360
aacgagcagg gcgatagtga cagcgggttg gcgctctgca gctccgggtgg tcggcgtag 419

<210> 10644
<211> 427
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-E10

<400> 10644

cgggtcgacg agtgtcagag cctacatgaa cggtaaaacg gcagggggga gcgcgcacct 60
ggagcgccct cttcttgaca gcttgatgat cggaggagta aatacatagc acaacataca 120
gagcgtctca aagataattt tgatagcaag cagttaacct tcttcactg catgtcggaa 180
tggtacacaa accaagcaac gccagcgag ctacagacgc aggattcttc gaggtcgatg 240
atgcaacggg aggatggccc catgcgggtg tgactaatta ggcgattgta aacaaaaatg 300
tttatagact cactgatgtc cgtagccacg taaaccacga gaaattgaaa ttctttctga 360
gtaaattcct ttgctgtggt tgaaatgacg aggaagatat agcaggtcgg aatgatcatg 420
tccgttg 427

<210> 10645
 <211> 442
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-019-Q1-E1-E11

<400> 10645

 ccgggtcgac actggctaca aagtgggtgg tgggtgggct ataaatttct tcgtcgcccg 60
 cgtcccaacc gtgttgccg tagtccggcc agggctctcc tgacaaagag aaagacttta 120
 acgaattcag ggtgttgccg aaaggtgagt gctgaaagac atccgtggcg gtgaactcca 180
 tgaccggagc ccaatcgggc ttaaccgaga gaggtgcggg atttacggag tccggcacct 240
 cggagtcacg ggccttgcca gggactangc tggatccgg ctctatcgcc gtagagattg 300
 cagtttccgg ggtggcgtct aaccatccgt cncgattgg catagtgggc tccgagctaa 360
 tggtcggagc ggacacctga gcgacgtctt gggcgttgct cgatgacaga gctaaatcgt 420
 gctcaacatg acagtgcggc gc 442

<210> 10646
 <211> 413
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-019-Q1-E1-E2

<400> 10646

 gggtcgacac tgctccctaa agagagtcgg ggtacacagc ccagacaaca ccctatcctg 60
 cctcgcagga gcgccgagtc actcgggtgac caaaagatct actctcgca ggttcggttc 120
 agtcttcgca gctcgagaca tggcggaaga gaatgccccca attgcagttg acgctcaggt 180
 tgcgggacct atcacagttc ttggagagcc catcgtcctg atgactgctc tgcagcttgt 240
 gatgaacagg tcatgcgctc atgaccgtct tgtcaaggga cttcgggaaa ctgcgagcgc 300
 gattgataag catgctgctc acatatgtgt gcctgctgag gactgagaac agcctgaata 360
 gttgaagctg gtgaaggcac tgtgtgcaga tcacaacggt cacatgggtca ctg 413

<210> 10647
 <211> 425

<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-019-Q1-E1-E4

<400> 10647

ccgggtcgac tggcgccctca agaacatctg agttgccact tgtagacaac tttgaatgaa 60
ggcgttcgat tgggtcccta atgatatgct tggccgccccg tgtattagtc ttcttcaccc 120
tgcaaaaaaa gaaagcatgt gaaaaaggta ttaagaaatg aacaaaaaat atttgcaagg 180
gtagaaatct aaaaaagttg aagagtangt ggaaagctag tagttgccat gtangtggaa 240
taagagttgc catgtgtcat agttagcagt tgccatgcaa atccagcaag agttaccttg 300
ctagccaact tgaagaatga taaaaatgtc tgatctgcta ggaatgcaat ttcaaaacta 360
agtatgtgat gagcacacaa gccaatgcaa agttggaagt tgccataagg gtacaaaaag 420
agatg 425

<210> 10648
<211> 434
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-E5

<400> 10648

ctcgcggggc gactgtcgtc ccgattatgt ctcacatag acaggagggc tttgctgtac 60
taaaatgagc cactcattcc ttgcaactat actagagtac atgcttttga taacaatttg 120
gggaagcctg tcaatgctga agatgggcaa gtagcatgat gtgtagcgag ctggtgggga 180
agtgcctgt ttttctctgg gccggtgccg tggaactgga atcaatgtat cgaatttcgt 240
cttgtttctt tctgaatttg ggccagaagc ctttgttgta aggatcctcc tgagtagtat 300
gctttcattt ttcttttctt gaacataacc gccaaatttg ccgaaaaagg gttttccctc 360
actttgtata caaagcaatc aaccgaacat ccaacgatag gtgctggggc ggaagcagca 420
cagtcacgct cgat 434

<210> 10649
<211> 411
<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-019-Q1-E1-E9

<400> 10649

ctcgcggggtc gacgggtatc gccaaatcga gtcgctcaga ggaatgggtct gaatctgggtg 60

accgctacgc cggcggggacg accggggcttc ttagctggggc cgtcatcctc gccggcctcc 120

tctgcggcgg cgctctctctc gtcgacaaga gcagcgctct cgccgggctaa gagagcatct 180

acgtgtaaca caaggctggg tctctgcttg catgcacgtc tctgtaatct acgtatctac 240

ctcctgtgaa tgtatgtcat caacgatgca aagtagttga ttcgaagaga tggtttatgt 300

atgtacgtaa cgcagttacc agatactcct acgtcctact ttggaaactg tatcagggtg 360

tattcttggg gcaaactgtt gcgcgtcaac aacatctgaa gacggccgct c 411

<210> 10650

<211> 461

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-019-Q1-E1-F1

<400> 10650

gctaccgggtc ttgctatcac gggtcgactt ccaccaaaac gaaatccatc atctcatcga 60

aagacggaca cctttgcctc tatcaagtgg tatcagattt ccaggttgct cggtgagatt 120

ttacagtttt tcgtagttga gatcgagttt gttcttcata cctatagtcc acgaaaaagc 180

cataaaaaaa atttagagtt agttcatcct atccgaacca atctgagcct ttgcatagtc 240

ttttctgtgt ttgcattggt gaatttgcgg ttgcatcgtc gtgtcaagtt gctgggtctta 300

acgtctactc cgtttagagtt tcgagttctg ttcacagggt gtcacgtcgc cgctgccgta 360

tatcaccacc gcatcagcat catcgctgct gccatatacc agcaccgcac cgacttcac 420

gccgctgccca tataccagca ccacatattc accggcaatc c 461

<210> 10651

<211> 439

<212> DNA

<213> *Triticum aestivum*

<223> unsure at all n locations

<223> Clone ID: LIB31-019-Q1-E1-F11

<400> 10651

gggtccacgc aaggtgagga catgtatgca accaatcaac atgcagatgt tggttttttc 60
ctacataggc tcagccaagc ccaactggga caagtatgca aaagggaaaa aaacgatgca 120
ggtaacctgt aacgcccaat atgcgaccat actccatacg tgtcgaggca cgacttgggg 180
catagccgca tattggtatg gtcacgagag tgtttgtatc tttgcgcac tcatgtactg 240
aatatataga atacgagctt tggcttaciaa tcgccacaat gtcacacaat atcatcaagt 300
tatacaatca ttcaagatga acacagtgtc cagctacaga cgaaatcaaa tgaatagaag 360
gcaaccaccc aagctaagtc ncgatcgacc ctactgggca acactactga tcatccggaa 420
aggaaacata gtaacaacc 439

<210> 10652

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-F3

<400> 10652

gtgggtcgac ctcagtctgc gtaaaatcag tcatcttatac gatgtcgggt ggccgtctgt 60
ctgggtcagg atcgcgaccc agtgggcaac agcaggtctg ttcattctggt cccttggtgc 120
tcccctcctg ttcccagaca gggagttcta gatcgacctg gttacctgct agtgcatacc 180
tgctagtgca tcatctgatt ggagccacct acgtattgta tcgtatcgaa cgtgttttgg 240
ctgtgatggc taagctgact atctgtattc tggctctgtaa tattgtgtaa gcaaaccat 300
ggcaaggagc cgggtgttgt gtgacgttgt cgagtctggt ctgcataatg tgtgacctaa 360
ggcattgttg ccagtatttc aacagtgaag atacggtctt tggttgcaaa aaaaatgaaa 420
caacgaaaaa aaaaaagcg gccgctct 448

<210> 10653

<211> 420

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-019-Q1-E1-F4

<400> 10653

cccctacaat aagtcatgtg actactacaa cgtgcaggcc gatgacaaca acaagaatta 60
tttaaggagg atcccagcca ggaggcctgc gcccctttca attctgtatc ccattttgtg 120
caacccttct taaggcaaac ttgtttaact tatgtctgta ctcaaataatt gttgcttccg 180
ctgactcgtc tatgatcgag cacttgtatt cgagccctcg aggccctgg cttgtattat 240
gatgcttgta tgacttattt atgttttaga gttgtgttgt gatatcttcc catgagtcnc 300
tgatcttgat cgtacacgtt tgcgtgcatg attagtgtat gattgaatcg ggggcgtcac 360
aggtatatta tattagagtc ctgaagatat gcaagaagca aagaaatcta tgaaggaaaa 420

<210> 10654

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-F6

<400> 10654

caggtagggt catgatctcg taatttatta ggattaagga agcaatataa aatacacttg 60
ctttacaacc tgaaaataatt gacagaagct aagatttgat cctgtgctca catagatgat 120
tggattgggc agaaatttgg aggagtgtgc aaaatttcat ctcatattgga tactcctagc 180
tagtacttcc ttcacaaaagc cttctgtctg acaaaaactt tgaaaatcac cgagggaagt 240
tggctaggca aatgagggtg aattttggca tgaggtaatt atttggacat aaaaatgccc 300
aaaaagtttg ggagcaacta gagaaagata aatgacactt ccttcacaaa gtgccgttca 360
ggacataata gaaaaaggag tattggggaa ttatttttga actggccaag gaaatgtttg 420
ggca 424

<210> 10655

<211> 436

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-F8

<400> 10655

ttcgcggtgc gacgaccact ggccacctga tctataagct tggaggcatt gacaagcgtg 60

tgatcgagag gttcgagaag gaagccgctg aaatgaacaa gaggtctttc aagtacgcct 120
 ggggtgcttga caagctcaag gccgagcgtg agaggggtat caccatcgat attgccctct 180
 ggaagttcga gaccaccaag tactactgca ccgtcattga tgcccctggg caccgtgact 240
 tcatcaagaa catgatcacc ggtacctccc aggctgactg tgctgttctc atcatcgact 300
 ccaccactgg tgggttttgag gctgggtatct ccaaggatgg ccagacacgt gagcacgctc 360
 tccttgcttt cactcttgga gcgaagcaga tgatctgctg ctgcaacaag atggacgcca 420
 ccactcccaa gtactc 436

<210> 10656
 <211> 436
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-F9

<400> 10656

ctgcggggtc gacatcatcc accatccacg agtgctactg ttcattccacg gttcacctcc 60
 gccagcctcc acctacgact gctcatccac gcactcctgt tcatccagcc tccagcactc 120
 ctccaccggc tactattcaa ccagtcctct ccacgggggtc ctgttcaacc accctccacg 180
 ggctactgtt caaccagccc tccacggggg cctattcatc cagccctcca cagggctcctg 240
 ttcattccacc cccaaccggc tcgatcaggg tcctgttcat ccagcggcaa cggcctctac 300
 taccacgggg tcctgttcat ccaaccccca ctgggaactg ttcattccacc cccaacaac 360
 gctcattgtt catcaagagg cagcagggtc gatcatcttc agttagcacc agtaacgaag 420
 gaattgctcg accggg 436

<210> 10657
 <211> 102
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-G11

<400> 10657

tacaccctga ggtgagtcgt attaatcgca cgacggggaca gctttgcctc tatcaagtgg 60
 tatcagatgt tcagattgcg cggtagagatt ttacagtttt tc 102

<210> 10658
 <211> 425
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-019-Q1-E1-G12

 <400> 10658

```

cgggtcgacg ctgcacccga taatgagtcg gaatatccta tgctgatgc ttctgagctc   60
tttacaaatg tctacgtcaa gggtttcggc gttgagtcac ttggcgcaga tagaaaggag  120
ttgagagcta cactcccata ggtcaccaac ctgaagatga agacgagtac tcttctaaca  180
cgatgatata tcgaggagga ataagcattg gtgaacaaac ccttgggtgt tgctggcagt  240
atattgttgca aaacgaacct gtatagagat gtgatgtcag gggaattcgt tccttatttg  300
ttatgttttc cttttttttt ctcttctgc aattcagttt aactgctgct agctggcgat  360
ttggcctgca taatcgcttc tgttcgcana atcatgaggt ggaaattaat gtttgctgt   420
gtcgt                                           425
  
```

<210> 10659
 <211> 454
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-019-Q1-E1-G3

 <400> 10659

```

gggtcgacag acgccgtgaa attcagtcct actaatcgta cttgccaaat gttgtggcat   60
acagtgggag gggcgggtgat atgtaccgag tgcacgaccc gttggcttgt atcactcacg  120
tgccgcttgc gtcatgggcc ccgcctagcg cgacaggagg gagtgcacgc atgaacgtat  180
tgttaaaatt cacaacattt tttagaataa tagttggttt tgtttcaaat ttaacaatgt  240
tcataaatte gattttttaca gattgaataa catatctgta cgtttaacaa gaatgtttgc  300
aaattcaaca aagtccatgt gtttacgaat tcaaaaaatg ttggcgtgtc caaaaaatgg  360
ccatgaattc atacaatgat catgtagtca aaaaatcttc ataaattgga aactcttcac  420
ggattctaaa atgtttgtga aggccaatta attt                                           454
  
```

<210> 10660
<211> 400
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-G4

<400> 10660

ggaactccct agaatgagtc ttattatgcc cagcaccata gacacaacca tagctggggc 60
cgacaaacct agtttagcgc cacttggtta attcaaggct tttgaaatat ctgaatatcc 120
tcctaggcta agaccaatac tgcgagtatc tatctgtttt cagtatcatg tattttatgt 180
ttctcaacca tctcagtttc atgtaataga tagtggacac tttaaaaatg ttcataaaat 240
gcaattttta aaaattgaac acaatatcta ttcgttacac acatatgtat gcatattcaa 300
cagaatacca tgtatatatc gctgccccaa aggttcgacg tttacttacg cttgcaagca 360
acttcaaacc tcttcaagtg tttcaccaaa tttcaattaa 400

<210> 10661
<211> 450
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-G5

<400> 10661

tgcggggtcg acgaaagttc ccatattcag tctaataat gtttcgattt tgggaagggt 60
ctagagcctt ttcacaccgg tttttaaaaa aatcattttg ggttttcttc tctttttctc 120
tttttcattt ttatttattt tcattttgcy gtcattctta atattcgtga actttttttg 180
aatttggtta gattattaaa attttaaaata ttttcgaagt tctgaacatt ttttgaattc 240
gtgatttttt tatattgtga tttttctaaa aactgcgaac aatttttgag tttgtgaatg 300
ttttacagaa ctgctaaaat ttcaatttta acatttggtc aaataatgat caattcttaa 360
attcttgaaa ctttttgaga ttgtgaccat tttttgaaat atgacaacat tttatgattt 420
tttttaaat caagaacatt ttttcgaatg 450

<210> 10662
<211> 439
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-G6

<400> 10662

ttcgcggggtc gactaggcaa gttatTTTTta gggattccgc caccgctaga gtaccttgct 60
ctgcaattaa gaggggggtca gatgtggatt gaacctgttg ccattcgcag ccagcttaat 120
catctcaaga aactgttcat tgcaaactg gcaatgaact ggggtacatt ctggattctc 180
accctacttg ctgccgcacc tgccttgagg tcgctccatg ttcattttga ctcagagaag 240
gcgagtgctt cagtattact agatgtgcaa gcggaacacc atcagcacca ctatcacctg 300
aaagaactca tggtcgttgg cttcaacggg gtggcatggc agacgggctt tgtgaagcgg 360
atcatgcagg catgccgat cctggagcat gtccacctgc tggacgggca cgtcgtggag 420
gatgaagaac ggcaactcg 439

<210> 10663

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-G9

<400> 10663

gggtcgactg cgagcaccaa caggtagacc tcacagcagt cccacggcgc atcagaatcc 60
acacccgcac ccgcgccaag gagactcttt gggcagtgga tcggcctcgg caggtcgtcg 120
ccagagaata gatcgcccga gggctcatcg tatcgacaaa tgcactctcc tcggatgtag 180
ccagccccct gcggaggcaa cctaagttaa aacttcacat ttggaacctg agttgcttgt 240
aagaaaagat gggggaaaac ccatctgtaa ggaattaaac cgggtttgcg cgctgaactt 300
ccggagaatt ctgcgaagga gaaacaggaa ataaccgga gggaaaacgt tttggtttgg 360
tttaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaagcggcc gctct 405

<210> 10664

<211> 373

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-H10

<400> 10664

gggtcgacgc cactgaggaa ataaagctgc tgtcagacca tctcacatgg ggctggtaaa 60
 tgtcggtcga gaaaattaaa tttcgggtcaa atttccgata tctcaccttg gctaggtaat 120
 gtcattgtcg gccgagaata tcaaatgaaa ctttgtaagt tgtactaggc tacttagact 180
 ttgaactaat gtgtgatggc cgtggattgt acgtcttgaa ctaatctgtg aaggttacct 240
 tggaagggtta acttttgttt cgcttgattc ctgaaaaatt tggaaaattt ccatcatatt 300
 ttgttcaaaa actcaaattt tggctctcat attccatctg tgatatctat ttatatataa 360
 aaagtaaatg atg 373

<210> 10665
 <211> 431
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-H11

<400> 10665

gggtcgacac catgccatac actcacatcg gcgaggaaac acctgacgtc attgatcttc 60
 ggaagcaaca gaggaagag tctgaaaggc caacagataa gcagttatac caggttcttg 120
 agcagaagga ggagaaaatc gcacctggaa ccctctatgg gtcaagccat acgtatgtgg 180
 ttggggcaca ggataaggct ggggttaaaa gggttgatct tctcaagaat caaaagtccg 240
 acaaagtgga cgtcaccata catcccagg agctcgaggt tatggacgat gtcctggcag 300
 ccaagtatga agaagcccgg gaggaggaga agctccggaa ccagaaggaa gacttcagcg 360
 acatggtggc ggagaacgag agcaagagga agaggaagca cgagaaggac cggaaatctt 420
 ccaaaaagaa a 431

<210> 10666
 <211> 387
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-H12

<400> 10666

ggtcgacggc accataaaac cttccccttt tcagacaaac gatgacgcac aaaatgagca 60
 tgctcatcta aagatttccc atcaactagg ctagttgggg tttagcacg agcgcataag 120

gatcgaagaa gatccaagta gaacacttta agtggatcca tatcaataga ttttttagcaa 180
gcaaagatga aagcacatag aaggcatatg gagacacgag caaacaaaaa gacaagcaaa 240
agagaggaga ttgggaaaga gagggcaa ataaaacggcaa aggtgaagtg ggggagagga 300
aaacgagagg caaatgggaa ataatgtaaa tgcgagggag atgagtttgt gatgggtact 360
tggtatgtct tgacttgtgc gtagacc 387

<210> 10667
<211> 417
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-H2

<400> 10667

cgacacagat ccctaaactg cgtcgtaata acatttttagt actcacactt ttgctgatg 60
acttcagatc tgaacctacg gatatatgtg tggacctgaa aatgaaccgc cagatgctta 120
aaccatatta tgaccagctg ggatgcaagt cgggtgtcaac aggtgctttt aaaccatttt 180
ttatgacgct tccagcacc ctcaagttcc cacaacaagt cacaaggaga aggcggcgaa 240
aataaccatc tcagtattgg tttccatttg atatggttgt gataggaaag gtatgcattg 300
ccaccgtcga aagaacctat gtgccctcag ctcaagttca ccaatgtagt ggagaaaatg 360
atgacgggtg ttgttctgtt tttgttttct attgtcgctt gggaattgct acaagag 417

<210> 10668
<211> 438
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-H8

<400> 10668

gacgtcacac tgtaaaccgt ctccaactca ctcgcttgac gactacttct tggttaattca 60
gtcaactatc tgcacatgta attaagaaga ccaagaagtg tacatggatc tgaatggaga 120
agaggatgag gattgcgaat gacttgtgca tcttccatga tcagaaccgg atctgtttat 180
ttttgcgtga tggtcgtggt ctcaattgta tggttgcac gtccatggtc agaactggat 240
ctgtttattt ttgcatgatg gtcgtgggtcc gacttgtatg gttgggttgg agtctttgtt 300

tgcattggta catggttgaa tattgtacaa tggactaatt gtagtgtata tgtgttgtgt 360
 catactgata gttttttgttt gcatggttga atattgtcca aatggactag ttacagtcta 420
 tatgcttata taaatgat 438

<210> 10669
 <211> 416
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-019-Q1-E1-H9
 <400> 10669

gggtcgacgg cacggttcat gtttcgtggg tccagcctag agtacttggc atcccacagg 60
 tgaaggcggt gcgtgagcgc ctggactcgt gggtcggcaa agtgcatacc aactgttgt 120
 ccatcgaggc agagaccccc gatctcgtgg cggcttagct tgttggccaa aaatgattct 180
 gaataggctt tggttgtcag caaggcggcg gtgtaaaacg agagaccatc tggctgtgct 240
 gcgcgtgcta gctgctcttt tcttgataac gaaaacttgt tgccttgggt gtcctattgg 300
 tctggacttg taacttcctt ctatcatcac ggatcgaaac agagaaatca taccggcaga 360
 gggtgtcact agttttttcc tgttgaactt tataatctgt aatccagcgg tttgtc 416

<210> 10670
 <211> 356
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-020-Q1-E1-A11
 <400> 10670

attctagggt cgaccagcca gcaaggagac ttactgctga atcgcataca gaagctgtcg 60
 cgagtcattg acctgtaggc tttctttgtg tggaggtttg gagcagctcc ttggcacaac 120
 cctactcgag cttcccagac gagacttttg ctttggttcc tgcgaaatac tggcagtatt 180
 gcattttgcg tttcaaactg gtcaaggggg aagtggggta gggctttttt ttcttcaaaa 240
 tctgagtatt tgacttgtaa cctaactatg tggatcgagg gaactgcaga ccattgtttg 300
 tagacggttg cttccacgat gatgaattca tccatttatt acaagtctgt cgaaaa 356

<210> 10671
 <211> 423
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A5

<400> 10671

```

ggtcctagac tcccgggtcc acctgggtcg agcactccgt cgaacaggtg ataggcaaca   60
tcgcgatgca gaccgggggtt gcatcatggg cgaccttggg aatctccagg gccttcgtgg   120
tggagcagga gacgttgggg acgagcatgg acgaggtgtg cgtcatgggt gacgctgccg   180
gatcgacaag cgaggtaacc acatgagggt caccagcgct tgcaacaccc aatagtgcgc   240
tcatctcctc tgccttagca cataatctct tgtgatacca caacaactgc tcgttggcag   300
gcatggcatc ccaactccgga ggtaagtcgg caggcatgtc gtcgtcgccg gtgaaacgga   360
tgaatcgggtg tgggagaaaa aatggggaaa attggatggt gaaaagggtg tgggctggct   420
ctg                                                                    423
  
```

<210> 10672
 <211> 374
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A7

<400> 10672

```

cggtcctaaa ctcccgggtc cacgatagct agacagagca aggttgatgc atcaatacag   60
ttctgaagat ggagcgatgg cagttggcgg cggcggcctc tcagagcacg ccggaccggc   120
gagacctatg cccggcaggc gtcctggatg ggttctcagg tcttagatgt tacgtttggc   180
tgcgatgtct gtttggattt atgcccaggc tatctgcgcc cttcatcaa ctggataagt   240
gtaccaacag tttgttactt agacggcagc tttagtctta ctgtggtatt actttgtaag   300
gtcttggttac aataattaat aaattggcct tatccatcgt ccaaatacaa aggccttttg   360
tcttccccct tttc                                                                    374
  
```

<210> 10673
 <211> 428
 <212> DNA
 <213> Triticum aestivum

<223> .Clone ID: LIB31-020-Q1-E1-A9

<400> 10673

gtcgacagac atgacagacc agatttgacc aaaattcaaa aaaactgaca taattattta 60
gtaacattaa tattcttgaa taattattta gtaacactaa tactttttga ataagtagtt 120
tgaccatagt ttgaccagat ttaacaaaaa taaaaaaaaa attaaaattt gagcataact 180
tttttccttt tagaacttga gaattctaaa aatttgcgaa aagggaatgt catgggaatg 240
gagatctgcc gcgccggtat tagactagtc gattagttga agtatgttca acattatacc 300
tccagagtcg gacaagctcc gcttttattt gaagtatgta ggaaatgtaa ttccgtccag 360
ttagttcaaa cagtgggtcca aatgtatgtg ggttctcttg gatagacagc tcccgcac 420
gtatccct 428

<210> 10674

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-B11

<400> 10674

gtcgacttcc accaaaatga tagctaccat ctcatcgaaa gatcggggccc ctgcctcta 60
tcaagtggta tcagattttc aggttgctcg gtgagatttt atagtttttc gtagttttaga 120
tcgagtctgt tttcatacc tacagtcac gaaaaagcca cacaaaaaat tagggtagt 180
tcatcatatc cgaaccaatc tgagccgttg cataatcttt ttagggtttt gcattgttga 240
gtttgcagtt gcacgctcgt gtctagttgc tggctcttagt gtctagtcct ttagagtttc 300
gagttctggt cacaagtagt cagccgccc ccgtatcatc atcatcaccg ctgccatata 360
ccaccatcat catcaccgct ggcatatgac accatcgta tcaccattgc catatgacac 420
catcatcatc attgctgcca aataccaca 449

<210> 10675

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-B12

<400> 10675

gtccacacag cttgttgcca gataatcttc tgtgtgaaag gcatcaagct tccatgcat 60
ggatggcttt tgcaaaccg acatgcagct atgtggttca tgccaacaac aaatatgcac 120
aacttgattc gtgctgatat ctagactgag ccatgtattt tgctgctgta gcacgacct 180
cttttggttg gtattatgta ctgttgtag tttgaagcac tcactgtggt tgaaggatag 240
tagatacctt cctaggatca agtgcacct cactcacctg cgtaggatgt actgataatg 300
atgatggaga tgttgtgcag aagcctaata tatatatata tcagttaggc ttcaagtgcg 360
tacttgtag ttaaactat gtatacattg tgacactaaa tacga 405

<210> 10676

<211> 458

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-B9

<400> 10676

tagccgtccg agattctagg gtcgacatgt ctatatcagt ataaaaatgg tacatggtgt 60
tcctgatgct attctttctt attttctgaa ggagaggctg gcatttgaca atacggttct 120
gtgtgtgaat tgactactgg tactgcagcc tgaaattttt cttgtggagc ggaccgaagt 180
aatccatcaa gctagctgca ttattttggc aggacatgtc cgaagaagac atatatgcat 240
gtgggtacat ggatatcggc gagagggact tgggcgaata tgggtcatcg cccaaaagga 300
agaaacttgc agataacaat ccaaagaagg cattggattt cggcagtagt gacgagcctc 360
ttcagtaggc ttttggtttt tctacaattt caagctttag agctgaacta ttgtcccaag 420
gtagtattta cattattttc gaaccaacaa tcacttca 458

<210> 10677

<211> 436

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-020-Q1-E1-C10

<400> 10677

tagccgtccg agattctagg gtccacgctg tggcggcatc agcagctaac tgactgaatc 60
 gctagctagc tacttcgacg tactcacctc atcatggcgt caaacacatg cctgaagtcg 120
 aaccagcttc ctgttagaac aacaaattgt actattcctt tgtactccca cctgccgtcc 180
 ttttggtttt cggatgatcg gtaccaggta ttgaaaatat actattacgg aaactaaatt 240
 tgatggggccg tgtcctctgt tgtccttctg tggacctccc attgattaat ctccttctaa 300
 tctgatcatt ggattcttga agtggcaatg tcaagctctc atcatgtgag tactcagtcg 360
 gtgattcnct ctactagtgg tattttatcn caaagaataa cacaacgtac tgtgcatcag 420
 gagcgtctac agatat 436

<210> 10678
 <211> 466
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-020-Q1-E1-C12
 <400> 10678

attctagggc cgacggacct gtaggtcggc atagccattg tggagtggca gcagcagtat 60
 gcagggatag caccgggctt tacctgggct cttctcttgt tgtgtatgca ggtattattg 120
 acccgactct tctcgaagca tttgcgtgta gagaagctct tgcacttgca gaggacctga 180
 gaattcagat gatgcacgtt gcttcagatt gtgaggaagt ggtgaaggac attaagcaag 240
 ggtcgggagg atatcatggt gccatcatcc aggaaataat tgctaggaaa aatgatatga 300
 tttcatgtac tttcactcat gaacgtagag tttttaattt cgaagcacat aatctcgtca 360
 agtttggttg taatttacgt gtaagtcgtc atgtatggtt ggggtctcct catgatcaaa 420
 acattgtacc tttaaattatt gagcagttaa agacgtgaga attccc 466

<210> 10679
 <211> 392
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-020-Q1-E1-D11
 <400> 10679

gtccaccacc ctattatcag tagtattccc ccatgtatat agtagtagtc taagtatttt 60

gtaacggtag ctatgatcaat tgtatgccct tgtttgaatt gagtgggtgtg atatgaatgt 120
gtttgtccca tgtgcatatg ggtagtgatt tttttctcct tagacccacac tctattctaa 180
tctgtccct ctaaaacctc tcagatgcct ccgacacgtc accccggatt tgtcttccca 240
ccgaagctca cccagttcat ccagcagcat aatgccttga tgcagctgct agtcacacaac 300
caacgcaaca acagtaacaa ccacaacct cacaatccac cgccatcact tcccgtagat 360
cacttcaccc gttttctgag ggtaaatccg cc 392

<210> 10680
<211> 418
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-020-Q1-E1-D2

<400> 10680
ggtgggacgt cccctaccga aaaccatcat gcttggtgtg agaagctccg gtttctgaga 60
agcatatacc caaacctgcc ccaaattgga caaaatttgt accacggcat gttgatgccg 120
ctacgtgata gcatgccaaag tttcatgaat ttcagacgag ttttggtttt actagcattt 180
aaaaaccagg cacctcaatg ttttgccggc aatcaacggt gccctggtgt ttgaaattcg 240
ttcccatctt ttgcatggga cctaagcatg cacccaagga cgctgatttg atttttcaac 300
caatttatat gcaactggagc atgcgcatgt agttcaaatt tgaattatgc acataaatgc 360
attgaaaact cagttaatgc ataaaaatgt cccaaacgaa cccgaaaaat cataaaaa 418

<210> 10681
<211> 462
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-020-Q1-E1-D5

<400> 10681
gcctgcccga tacggctcta gattcccggg tccactccct accttgaaag tggctagtcc 60
tatttataga gcgaggccct gatcctcttc ccaaatttg agcgggaagg gcaccaacaa 120
ttggccattt tgaaggggaa catctagtac acttatcctg actaaagttg gtcctcgctt 180
gccaaaggct ctgacgatga cgccttcttg ggctccacga tgacctccat cctgccgttc 240

tgctgggtctt ggtcttggtg gaccgaaatg gtaacctttg cctgatgcct tggcctgtgc 300
 ttgccccatt tgcaccgaag gggaaacaag gacactgccc aggccggcac ccacctggct 360
 tgggtcgtca tggcttgcac cacgggcacc tcatgatgta ccccgcttg atctctccgc 420
 ctccctcgca gctagcctga cgaggctgca cctgaggaag ct 462

<210> 10682
 <211> 415
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-020-Q1-E1-D7
 <400> 10682

catgcaccat ggagtcatgt gagttcaagg gtgcatacaa ccagttgagg aagcacgtca 60
 gggaggatca tcttgcggta cgaccaacgg aggtggaccc caatcgacag cgagactggc 120
 ataggatgga gcagcagcgt gatcttgggg atttgttcag catgctgcgt tcggggatca 180
 gtggcagaga agatgggggt ggagtcagt aaggtgacga gggcgtcagt gagagatcct 240
 tgcacgccac gtccataacg atggtcttca ttgtgcggtc aggcaggctc atcctacact 300
 acacagacgg ggaaatccca ggtcgtcgat caagaacaat tcttctagtt ggggagcctc 360
 gtggtgaagc ctcccgagga ggaggatcaa gcggcaatgg tgatgctgag gccac 415

<210> 10683
 <211> 363
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-020-Q1-E1-E11
 <400> 10683

gtccacaccg aatttcacac agcgggagat ctggttcctg ctgaggctca tgcccagact 60
 tgtgcaataa cacagattgc acaccattaa ctcatggctt tggatgtaac cgattgtttg 120
 gcaaacaagg caaggaggac ccttgtgga aaggaatata aggttacaaa ctgggttggt 180
 gtgaagtect tccgtgagcc ctggtactgg gaaaattggg gaatgatatg atatgttgta 240
 atgtgggtgg cgaaattttt ggataaacat gttgtaatga atgtcaccgt cacaatgggc 300
 cgtgttacca aactaatata tgatcctgaa tctggtaacc agcattttcc accaaaagaa 360

<210> 10684
 <211> 417
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-020-Q1-E1-E12

 <400> 10684

gtcgacatcc aaccagatgc gcatgtcaag caggcgatga atgagatcaa tgcagctgca 60
 aggatgaggg tggctgcaaa cgagaaggcg gaggctgaga agattgtcca gatcaagcgt 120
 gccgaggggtg aagcagaggc caagtacctg tctggcctcg gtatcgcccg ccagcgccag 180
 gccattgtgg atggcctgag ggacagcgtc ctgggcttct cagtcaatgt gcctggcacc 240
 actgcaaagg acgtgatgga catggtgctg atcaccagct actttgatac tatgaaagag 300
 attggcgcgt cctccaagtc ctctgcggtg ttcacccccc atggccctgg tgcggtgcgc 360
 gacatcgcca cgcagatccg tgacggtcct cttcaaggcc agtctgcctc tgacaac 417

<210> 10685
 <211> 398
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-020-Q1-E1-E4

 <400> 10685

attgaagagt tgaatgctcc gagcttctat ccttctcttg tatcactttg ggtaaagtat 60
 tcctttgaga ggaaagatat ggaaagagag ttgttgcaa agctctttgt cgggctttac 120
 aacggtggat ataatttatt gagcaagcct cagctcattg aggggctttc atctgttctt 180
 gcttcattgg aagatgctct aagtgattct ccaagagcgg cagagtatct tggacgactt 240
 cttgcaaggt ttgtggtgga gaagatactg gttttgtaag acgtaggtaa attgattgaa 300
 gaaggcggag aggagcctgg acaccttggt caggaaggca ttgcagctga tgtccttggg 360
 gcagtcttgg agtggatcaa aacagaaaag ggggattc 398

<210> 10686
 <211> 419
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-E9

<400> 10686

```
gtccacagcc gcattggcat gaccaagtcg gacctcgtca acaacctcgg gaccatcgcc   60
aggtcgggga ccaaggagtt catggaggcc ctgcgcgcgg gcgccgacgt gtccatgatt  120
gggcagtttg gtgtcggttt ctactccgcc tacctcgtcg ccgagagggt tgtcgtcacc  180
accaagcaca acgacgacga gcagtacgtg tgggagtccc aggccggtgg ctccttcacc  240
gtcactcgtg atacgtctgg ggagcagctc ggcacgggta ccaagatggg cctctacctc  300
aaggacgacc agatggaata ccttgaggag cgccgcatca aggatctagt taagaagcac  360
tccgagttta tcagctaccc caactccctg tggactgaga agaacactga gaaagaaat   419
```

<210> 10687

<211> 409

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-F10

<400> 10687

```
catcttttat gatttgagtc tttgcttatt agtttaccac aatcatcctt tctgtacaca   60
ccttttgaga gagccataca tgatttggaa tttgatagaa tactctatgt gcttcactta  120
tatcttttga gctttatagt tttgctctag tgcttcactt atatctttta gagcacgggtg  180
gtgtatttgt tttatagaaa ctgttgttct ctcatgcttc acttagatta ttttgagagt   240
cttaacaaca tggtaatttg cttaaaatcc taatatgctt tgtatggaag attaataata  300
aaactttcat atgagtgtgt tgaatactaa gaaaagtttg atgcttgatg attgttttga  360
gatatggacg taataatatc aaagtcatgc cagttgagta gttgtgaaa   409
```

<210> 10688

<211> 477

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-020-Q1-E1-F11

<400> 10688

gtagccgtcc gagnattcag ggtccacaat gccaaaaggg ttaaaaactgc gaagttggtg 60
gcagtttttg acatcggttt ttctgggggt gtgttcgcgg ccacaacatt cgccattgga 120
gggcttgaca tgaaaatcat ggttattgga ttgatatgtg cttgccttag cgtgttcatg 180
tacgggtccc cactcactgc cgtgagaacg gtgatcgctt caaggagcgt ggagtacatg 240
ccctttcttc tctcattctt cctcttcttc aatggaggag tctggggccac gtatgccata 300
ctcgacaaag atgtcttctt tgggggtcct aatggaatag gctgcttctt gggcggcatc 360
cagctggtta tctatgcaat atacaggaac agtaagggtc gctctcagtc tcatgacagt 420
gacgaagcag catatgatgc ttcggcttct cttctgtcct ctgatgccgg cagacat 477

<210> 10689

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-F8

<400> 10689

ggtccaggac tcgcggtcg acttcacca aagcgaaatg accatctcat caaaagacgg 60
gacacctttg cctctatcaa gtggtatcag atttccaggt tgctcggtga gatattacag 120
tttttcgtag tttagatcga gtctgttctt catacctaca gtccacgaga aagccacaca 180
aaaaaaaaatt agggttagtt catcatatcc gaaccaatct gagcctttgc ataatctttt 240
tagggttttg ctttgttgaa tttgcggttg catcgtcggt ctagttgttg gtcttagagt 300
ctagtctttt agagtttcga gttctggtca taagttgtca cgccgccgcc acaccatcat 360
catcgcccct gccatctacc accaccgctc cgaattcgta tccatatacc accaccaatc 420
cgtgcccata taccaccacc gatccatct catata 456

<210> 10690

<211> 301

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-F9

<400> 10690

gtccacaatc gtggaaataa acaagggttc ctatcattcc cggatgataa acgggggattc 60

atgagatttc cctatgtcaa tcagggttac actctagatc ggtaagccaa gtacagttta 120
agaacaactg gagccagaat cctaaaaatg ggtcaactgc agagaagatg atgcaataat 180
taatgggcct taacaagcca agggccaatc cagggaagaa caaaatgcgc caacaagttc 240
tggtggaacc aaaatataag ttatgttgta tcctaattcc ctttttttgc cggggaaaac 300
a 301

<210> 10691
<211> 458
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-020-Q1-E1-G10
<400> 10691

ggtccacacc ttccacaaga gtgacacgat ctagggcagc gctggggacc ggcaagtcgc 60
gagttcttac ctggaaggcg tcattctggc aaaccaagat aaggataact tcctcgtgcc 120
ttactttccc aagtaagtcc tcccctcaac cggcccgtaa catataaatt cttagatttc 180
gatcggtttt ctttttagcat tcagtgtttt ctacagtgac acacattgca cgctcatcct 240
cctaagcccc aaatattcca tggccacata ttctgaccgc gaccgtcagt ccaacgtaga 300
ctacacaaat gtcaagaaag ttcttgatga tgttctcccc ggctacgcca aatctggagg 360
caccttcacc aggcctaatc gtaagtacgg gaagcaagtg ttctcccaca atacgacgtt 420
ctgctgcgtc aagcagccgc ctgacggtaa gaagggtg 458

<210> 10692
<211> 443
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-020-Q1-E1-G11
<400> 10692

tccgagattc acgggtcgac agcctcgaca ccgtaggcac cgtcaagaca aagatccact 60
gcatggaggg cttccccaca aacctgcagt gcctcatctt caaaggcaag cagctcgagg 120
acgacgagcg cacgttgagg gagcacaata tacacaagga ttccacgac cttctcgtcc 180
tccaccacgc cccagaggt gggatgatca tcttcgtgaa gatgttgata gggaagaccc 240

tcactttcga ggttgagagc tcagacactg tcgagagtgt caaggtgaag atgtaccaga 300
 aggaaggtat tcctccgata caaacacgcc tcactctcgc cggcaaggag ctggacgaca 360
 agcgcaccct ggcggagtac aagattcaga aggaggatac ccttcatcat ctgctctgcc 420
 tttgtggttg ttgatcgaga tgc 443

<210> 10693

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G4

<400> 10693

ggggcctctg ttggggcttc aaataaggct cagacagcag cactaatttc tcacggatcc 60
 ttagacctca aagatgattt cagttagcaa gaggagcagc tgcggcagtt tgacatggac 120
 atgaagtttg gcccatgcat cgggtgtcaac cggcttcagc gctgggagcg tgcttccgcc 180
 atgggcctcc agccaccgcc ccaccttcat gatctcctag cgcgtgcctc ctccggaac 240
 aaccgcaaca acggcgcccc ctcccctgag tgccctctggg agggtaagat ctagaatcaa 300
 gtttcttccg ccaagagtgt tccatggcaa cctagcaagg cttgcctact gtttgggacc 360
 atgtagttaa gtctgaaact tttaccgcgc gaaactctcg ctgttgact gaatc 415

<210> 10694

<211> 458

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G5

<400> 10694

cgctgcccgc atacggtcct agattcccgc gtccactccg cctctgtacg tcgagcaact 60
 gaaggtggac cccctcgaga gctcggttgt ggcattacca ccattaccac cctcgagcc 120
 cagccagatg ctgcactccg agaaggggga ttccgacgtt gcaatgtctt gctcgtccgt 180
 gtccattggg caagtgggtc ctgtaggtga tatggttgtc gcaccagag cattggctcg 240
 tgtgcctggg gctctcatag caaaagagat ttgtcatttc ctcgctacct tggacgctgc 300
 taacctgga tccggcaaga cgattgggtg tctccttaag gagaaggcca tcagggataa 360

gaaaagtggg ggtgctagct ctcgtcctgt cgtctttaag gagaaatcaa acaagtgcag 420
aaccaagaag agtggcgcta tagaaaaggc gtccgtga 458

<210> 10695
<211> 416
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G7

<400> 10695

tacaaaaata cttatcgggt tgcattgtca ttagttacca tcaaaaaatg cataaaagac 60
aaagaaaagg gctacaatta ctagaatacg tctaaaaaaa agcatacctc atcactgcag 120
tttgggtggga catgcacatg catgaacttc ccaagacctt gtaaaaccgc caaacaagca 180
aaaatcgacg ccaaactggg gtttcaactg gtgaattgtt gagaatgaaa atgagtaagg 240
aaaagtataa atagacaaat gcatttccag taagtacatg aactgattag aaggaaaaga 300
aaaacaaagt taccggtagt ttcccataag aaatttcgtc tgcttggaca tccatactaa 360
gcaattcaga tatcttctct tttttccaaa cattgatagc aaatgcacca tcgggc 416

<210> 10696
<211> 384
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-H10

<400> 10696

ttcacgggtc cacgacttga aagaagtggg ggaagccaat aaggaagacc gtgtcaggaa 60
agcaatggag gcccaaacaa tcattaccca agagctgaaa cggttcgagg cttggaggga 120
ctcactggag acggttccga ccatcaaaaa gctgaggtcg tacgccgaca ggatcagggc 180
atctgagctc gagaagtgcc tgcagaagat cggggaagac aatctcaaca agaagatgaa 240
aaggtccatc gaggagctga gcacgggtat agtgaacaag ctccttcacg gccactgca 300
gcacctgaga tgcgacggca gcgacagccg caccctggac gaaacgctgg agaacatgca 360
cgccctcaac agaattgtca acct 384

<210> 10697
 <211> 440
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-H4

<400> 10697

cgactatgcg gcccaagtca tggccgggtct cgaaagggtc ctcgatgcag atcagatggc 60
 ggtcgtttcc gatgcgagtc gtccagttct tctccttctt gctacatgtc gttgcgtcat 120
 cacaccaggt gagaaaaaat gtttaaaatt cttataacct agatgaatta agtcgatatt 180
 gaattcttgg tttggaagaa gaatgctggc ccttaattac ctacctgatt atctttccca 240
 tacggatgga gatgacatct ttcctgtaat cgtgctggaa tgcccagtag tggaaaaatg 300
 cccagagtaa ctccgcgatg gtctccttgt tttcagcccc aaaatcacga agctgatgaa 360
 cttcgtcgaa ataagcgcac tcagtgtcat caacaacctat ggtatatgtg ggctccatag 420
 cctgaaaaatg tggggaaatg 440

<210> 10698
 <211> 404
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-020-Q1-E1-H9

<400> 10698

ttcaagggtc gaccaggctg agaaaatggg acttgactac atggatgttg aaagtctcaa 60
 gaagatgaac aagaacaaga agcttggtta gaagctagcc aagaagtacc atgctttctt 120
 ggcacagag gccataatca agcagatccc tcgtctcctt ggccctgggc ttaacaaggc 180
 aggcaagttt cccactctgg ttagtcacca ggaatctctt gaagccaagg tcaacgagac 240
 aaaagctaca gtcaagttcc agctaaagaa ggttctttgc atgggtgttg ctgtgggcaa 300
 cttgtcgatg gacgagaagc agatccaaca aaacatccaa atgagtgtca acttccttgt 360
 gtcnctcctg aagaagaatt ggcagaatgt gaggtgcctg tacg 404

<210> 10699
 <211> 414
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-A12

<400> 10699

cggaataacc agctagaaga tcttgaaatt gtttcagctg attatatgct gaggggttgc 60
gtttctaact ttaggaatgc ctgggagaat atggaccag aaagtgagcg tgtggatgag 120
tatggactcg gggctagaga gagcttggtg gagggcgtga atgctgtcac tagtatcctt 180
ggcatgcaac cgtgtgaggg cactgaggtt gtaccaagca atgcaagatc gcacgtttgc 240
ctgctgtctg ggggtgtatat ggggggcgtc aaggttcttg tcaggttatc atttggacta 300
agcgggcccc aggaagtggc gatgaagctg gcggtaaggt cagatgacc cgaagtcagc 360
gacaagattc atgagattgt tgccagtggg taaaacggat ggcggcattc gcc 414

<210> 10700

<211> 293

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-A2

<400> 10700

tccactgtgg ccaatggagt gatgaagatg tactgtagag tacatattca agggaactgt 60
gaggtgactt agatagctgt aatgagctga tggagccttt gacctgaagt tatatttgta 120
tagattacat gatttggtga tgaagataag aaagaagaac tgatggcaaa caaaccgagg 180
aaagtcaccg aagaatgaag gtgggtgcga tgccacatca gaagggattt aagctaaggg 240
tgaattaagg gccatggagc caaccataa gaaggtccaa taaggtgcat aca 293

<210> 10701

<211> 420

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-A5

<400> 10701

ccgggtcgac tttgtgttga taaccgtcca gtaaacaaga agaccatcaa gaacaaatac 60
ccacttccca acatcaatga gctgttcgaa caactcaagg gtgctcaagt attctccaag 120

cttgatctcc gtatgggtta tcatcagatt cgtattcgtg agcaagatat tcccaagacg 180
 gcgttcagaa caagcttttg ttcatatgaa tacaccgtca tgtcttttgg cctcgccaac 240
 gtcctctcga cggtctctcg catgatgaac ttcattctca acccctacac caatgaattc 300
 gttctgggtct atctcgacga cattctgggt ttctcgaaga acaagaaaga tcatgccaa 360
 cacttgcggt tggttcttga caagctcagg gaacatcagt tctacgcca gttctccaag 420

<210> 10702

<211> 394

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-A7

<400> 10702

cgggtccaca acaattgttg atgatggcag caccagga gaagtgacta agagggttgc 60
 acagatcaaa aatctcattg aggcagcaga acaagactac gagaaggaaa aactcaacga 120
 gaggattgca aagctcgccg gtgggtgtgc tgttattcag gtgggagcac aaacagaaac 180
 tgaacttaag gagaagaagt tgagagtga ggatgctcta aacgcaacca aggctgctgt 240
 tgaggaaggt attgttgttg gtggagggtg cactcttttg aggctggctg ctaagggtga 300
 tgccatcaag gacaccctcg ataacgacga gcagaaggtt ggagctgaga tagtgaggag 360
 ggcgctgtgc taccactca agttgatcgc caag 394

<210> 10703

<211> 420

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-B1

<400> 10703

gtccaccggg ccggacaaaa cacatgcata tgcaaagtca gtgtacacgt actacgcagg 60
 aagacattgc tttctggatc tcctaaatat tttgttgcac gcctatgctt acgtacatag 120
 ttggtcacat gcatgggttt cccggggaac aagaacaaaa cataatctac tgtaaaatgt 180
 ttaatttttag tcggcagtc cggtgtacgt acgaacgagc agcttgcttg ctgggtccctc 240
 cttcccacac caacgcctgc ctgcatgcat gcatgcatgc ccggccaccc gggtttttgta 300

catactacac cgtggaatgt tgctcaaaag attttgatag atcagtgtag gtatatatca 360
agagagtata taacacaaaa ctcgtgcctt tcatattaga aacagtgtag gtatccccgc 420

<210> 10704
<211> 398
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-B3

<400> 10704

tccacgaagt tgtcgaaga ggttgagcat tggtaggttg acatgattgg catatgtgga 60
tgtgctataa gatgtgcttg atctctccg tgcgtcatac acccccagtc gtcagtggta 120
cacgagttgc gataaactgg tgacgaaatg gatggaaacc actgtgtttt caaaaatcgc 180
catcaattaa tggaatctta gcaaccagca ccataagaag tatttgatga ttagatgaca 240
atggtgcaca ctaaggaacc cgtccgtgat gaattcatca attccaaatg tttggaaact 300
accatgcgtt ttcgcccage acacattgac taatctaaca cacacaggtc aggtggatca 360
actgaatgcc aagtatcgca cattgttaaa aaataatg 398

<210> 10705
<211> 423
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-B4

<400> 10705

cctgccgtac ggcctcgaaa attccaggtc gacacgcatac atcggaacca catctatcga 60
gagggaaacga gtaccggtaa catagaagga acataatcaa tgcaatgaac aagtaccgaa 120
catgtcagcg caagcgttgc tcgagtttgt tgcacttgtc gataggatgc cggatgtggt 180
cctcacataa ggcacagatg acatgattta ctaggctcgg gagagcatgg ggcagttctc 240
tgttagatcc gcatataggg cattcttcgc tggcttgatt gagtcagacg gtgccaccca 300
gatttggaat tcgagagttc caaattcttg gaagttcttc atctggcttg cggtagaagt 360
aggtgttgga cggcggatag agtgcaaaga aggctacttc ctcacccttc gacatgtccc 420
ttc 423

<210> 10706
 <211> 411
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-021-Q1-E2-B5

 <400> 10706

 ccgggtccac tgcacggatg caaaggcaat agccgccttc aggcattgga tctaggacaa 60
 caccgcttta acatcgctcc ccagtatgca tatctgaagc tcaagattcc tggacctaag 120
 ggtgtcatta tcgttaacgg taacattgag cccttgctcc gaactaagga gcacacagcg 180
 gccctggcag ccgaagtcca ggccggcaaa ggggcacgaa aaccaggaa cacatcaagg 240
 tgctagacgc acacaaacga gcctgagcta caacaccgct tcaagagcct tctcgcgctc 300
 accctaaata gggatacgct cccacaaca cggtttctcc agccacgaaa tacgtacctc 360
 gggtacacaa tttcgcaactt aaaattccat gggcagccgt ggggacaaac g 411

<210> 10707
 <211> 456
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-021-Q1-E2-B6

 <400> 10707

 tacggtccta cattccccggg tccaccgaca gaaggggctg acgtgtaatg tgtattgcta 60
 tgtgtgggat ctgactatct agttgtttat ccttagtagc ctctcttacc gggaaatgtc 120
 tcctagtgtc tccactgagc cctggtagct tgctactgct ccggaacact taggctggcc 180
 ggcatgtgtc cttcttcgat cctgtgtctg tcccttcgtg gaaatgtcac gcgatgaata 240
 ccggagtcct gttagcctgc tacagcccg gttaccggag tccagtttagc ccagtgtctac 300
 agcctggatt cactcgctga tgaccgacac gtctgatgct gggtcattga tgctgtccc 360
 tgtaggttag tgccactttg ggtttacaac tagccatgtc agcccggtct ctttatcata 420
 tggatgctag cgacaccatc atatacgtgt gccaaa 456

<210> 10708
 <211> 396
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-B8

<400> 10708

```
ctcgcggggtc cacggaagcg tccaaaatgt gtcgtcatga aagatagaag tacacagcat   60
gatccagcac  gtggaccaa gaccattccg cagattcccg gtggttcatg gctatggcca  120
ctcgtagaca actgcacatc tatacctgac gttcccacgt acgctagtgt gcaaatacata  180
ttctctacgt tccagatgca atggtgactg cggggagctg gtacacacgg cacagcatag  240
catgatacgg gaaaggcctg cacgatctga acagctaact gctgcctgta tcactagtat  300
acacgctgac cataacctgt gtcgcctgca tccgcattccc caacttcagc atcctctaca  360
ggctggacaa tggctccttc attgaccacc tcccaa                               396
```

<210> 10709

<211> 384

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-B9

<400> 10709

```
tgagtcgtag gattcttaat tctgggcgcc gccattcca cgtgacggcc tcgcccattgt   60
ctgagtttga caatgcgagt ctgatttcat gggcgatgca tctcgcccat gttggccgct  120
tgcttgatct tgtggactct gcactcctgg atgttaaccg tgaacaagcg ctgctatgcc  180
tcactgtcgc actcctgtgt atccataagt ctccaatccg tcgcccacaa agccacgagg  240
cacttgaaaa gctctctggt gaaggtgaac caccatatct ccctgtacaa ttctcaacgt  300
cgctcctggt tgggttcccc ttcagatccc tcacgaaatg cctctgagtt cactttgttg  360
gttatatgcc aatggtaatg tccc                               384
```

<210> 10710

<211> 413

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C1

<400> 10710

ccactgcgac cagatctcag agatgcctga tcttgctttc accatagcaa acaagacttt 60
caccttgacg ccagagcagt acgtagtgaa gctggagcaa tcaggccaga ccatttgcat 120
cagtgggttc atggcgttta acgtgccgcc ccttcgcggc ccgctctgga tacttggaga 180
cgtcttcatg ggcgcctatc acaccgtttt cgacttcggt gagagcagga ttgggttcgc 240
caaatccgcy tgatttggtg atcccagtat ctccagtgt tcaaggctca aggccggtat 300
tgtacataat ccaagcacgt gtaagttgcc aggtcaacaa gaaatttatc agtagaaaag 360
gaacaaaatg aacttgccat cggcatttca catttgtata gctatttgct gtg 413

<210> 10711
<211> 422
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C10

<400> 10711

actcgcacag aaaaaatage caccatctca tcaaaacttt gggacacctt tgcctctatc 60
aagtggctct agttttcagg ttgctcgggt agaaattcta gttttcctag attagattta 120
ttttctcacc tattgtccaa gaaaaagcca caaaaaaagc tagatctatt catcctttgt 180
ccaagctagt ctgagccttt gcaattttct tttcattgct tgcatagttg aattatcggt 240
tgcategtcg tgcgagttg ctggctcttag tgtcttggtc gtttagagtt tcgagttctg 300
ttcacattag tcacgccgcc gctgcatcgt tatccctttc gctgtccacc acccattcat 360
caatttccac cagtgctac ccatcattca ttgtctaaat gatagttgag gtcgttcaca 420
tc 422

<210> 10712
<211> 419
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C11

<400> 10712

gtcgacacag ggggtgagaa tgcttatggt tcagaagatg atcataagcc acttggtatg 60
aatatcaact cagcaaaagt ggcttctaataaatagcaciaa ataagaccgt tttgttgaag 120

actgcaccac ttaagactct gcaacctgat gatgattcag atgatgatca taagccactt 180
gttcagaggt tcaaccagc aaaaggggct tccaataata gcacaagtaa gcccgtttta 240
tttaaggctg cacctaagat tgtgcaatct gatgatgatt cagaggatga gaaaccactt 300
gccagcaggt taccactaa tgctgctcca aaaagtagag ctagcacctc tgattcagag 360
gatgagaagc cactgtctgc ccgattttca agaggtagct caggtacatc tgcgagtat 419

<210> 10713
<211> 354
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C2

<400> 10713

tccaccatga cgtcttgaca tcaaaacatg ggggtggctt ggaccattgc tgactgcctt 60
gactgcttag ctggtactcc atgtacgata aggggtggga ccttaagtag ggttaaaatc 120
cactacaaca acaacacaca tctaagtttc tctttctaata ctataaggca cccccgatg 180
tcaccttaag tagtcccaaa aggcatacta cacaatcacc tcatgatctt tategttcta 240
atctcaatcc acaagtcac ccatggccac tatattctcc aaaattatac tacatatgaa 300
tcacataatt cattgattcc ctaaaacaaa cacataccgt tcacaaaaaa tcgg 354

<210> 10714
<211> 417
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C3

<400> 10714

tccactgtgc cgacgcaaaa gccttagcag ctttcaaaca caatgtccga gacgaatggc 60
tcaccagaca ccttggccaa gaaaagccaa gaacaatggc cgcattaaca agcctcatga 120
cccgcttttg cgcgggagag gatagctggc tggcaagatg cagtaccaat gactcaagta 180
catccgaagt tagggatgga aacaggaaac cgcgacgcag cacggacgaa tgctcgacca 240
agggcagcat cccgaagagc acggcagtca acgccggatt taaaagctca cagcataatc 300
atagaaaact gcccctaag gataacaggg aggagctatc taacttaaac aaaatcttgc 360

acaaggtatg ccaaatccac agtacccccg ggaagcccg aaatcatacc cacaaag 417

<210> 10715
 <211> 423
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-021-Q1-E2-C5
 <400> 10715

ctcgcgggtc caccgacaatc cctagaatga ttcatatgat ttaggtaggt tgccaataga 60
 gtttgctgcg gtgcgtgatt gcaaggaaga ggttgaaatg ttgtttcctt tgactaacc 120
 aattccaaat gtccgaaact ggagtattga gggagtaatt tcttatgcaa aaattcaaga 180
 taaaaagccg atggagcaaa agcacgttga aaaaagaaag gctttcttaa agttacaggc 240
 taatacggca ttcaagcaga aggagtataa gttggcatca cagttgtatg gtttggcaat 300
 agatcatgca gagagtgcag cactgtatgc aaacaggagt gtttgtaaac tgctcatggg 360
 tgatggtgaa ggtgctttgt cggatgctct caggtgcaga atgctgcgac ctgattgggc 420
 caa 423

<210> 10716
 <211> 390
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-021-Q1-E2-C9
 <400> 10716

gtcgacactg gtgtcaatag tgtgtcgcc tatggtaatg taacaccgac taatttgctg 60
 cacgtccatc tcccggtcga gggatatgtt cattactcaa ataattctca tcatcctgca 120
 agccaccatt cttgaggtag atggacaggg tcatatgcca tcttcacctt gtcacgtagg 180
 catcttcaca tgtcaccagt ctaccggata taccttcccc ataatgccag tccacactct 240
 ctccgttcta gttaactagg ctattatatg tgttgatgatt taatgagaga gctttattca 300
 tatatttatc attctcttgt gacaatctac aaaaagact ggtcactcac gcgtcgaagt 360
 actcctcagc aaacaaaatc cttgaatgca 390

<210> 10717

<211> 414
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-021-Q1-E2-D1

 <400> 10717

 tccacgagtg cgaggcaacc ctcaacgagc agatcaatgt ggagtacaat gcctcgtacg 60
 cgtatcactc cctcttcgcc tacttcgacc gcgacaacgt tgctctcaag ggatttgcca 120
 agttcttcag ggaatcaagc gacgaggaga ggggacacgc cgagaagtta atggagtacc 180
 agaacaaacg tggagggagg gtgaggctcc agtcaattgt cacaccctta accgagttcg 240
 accatgctga gaaaggcgat gtcctgtatg caatggagtt ggctctagct cttgaaaagc 300
 tggatgaatga gaaactgcac aacctgcaca gtgtagctac aaggtgcaat gatcctcagc 360
 tgaccgactt tgttgagagt gaattccttc aggagcaggt tgacgccatc aaga 414

<210> 10718
 <211> 354
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-021-Q1-E2-D10

 <400> 10718

 gtccacacaa gtctccaaag ttcgtcttcc tctacatata gcttcgctgt gaagataccg 60
 actgggcctg atatgcccag cgatgtctca gacgacaaac aagctgagca cgctagcatg 120
 aacagaggca gtcgagcaca tggatcatct ttgattcttt tcattccaca ttagatcagg 180
 gttctggctg aaaatcagtt gagacagatc agcgacatct acagatcaga tttgccgtca 240
 gttgctcagg tcttatcatg ccacaattcg tcaagttatc agaactatag ttcgacaaga 300
 tacacacttc acatcagata gactgactta tatgcatagt ccaccttttg acaa 354

<210> 10719
 <211> 433
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-021-Q1-E2-D11

 <400> 10719

gtcgacgccg cttttttatt tttttttttt tttttttttt gcaggatcag tttaacatga 60
 taaatccaaa ttaaactggg ggctaattgc ggggatattc cccgtagtat aaccggcct 120
 gaagtatgac ttagccggac ttggcggctc actagtgacc cgccctggct tggccactca 180
 ctagtgaccc ggccgagcct agcgactcat gggatgaacc gcaggcgggt cagatgaatg 240
 acaaggccca aggccagaa ggagacttat gagaaggccg actcaaggta cggtatcaag 300
 tgggcccggc tgagatggaa gacataagga atatttcctt tacaaggga cctggactag 360
 gattcaactt gtaatagagt agtcctaata ctactaggac tagtcatgtg agccaccct 420
 tcaacttata taa 433

<210> 10720
 <211> 437
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-021-Q1-E2-D12
 <400> 10720

gtcgaccacg acttgacaaa ccacacaaga ctctagtcca ggtttatcgc ctattcgggt 60
 tccatctgca aggagatctg ggcgggggtg cgctcacggc cccaaacgat gtgtgcaggg 120
 ttccaagcc cacctcaccg gatggatcta cgcttggtac atcgtgccac ttgtgcctgc 180
 tatgtcccaa gccacactgg ctgggtgcca cttggtagac tactagcact acctacaaac 240
 actagaaact gaagcttgtg attcctgtag catgcacgta tggatgaacc ttatgcgatg 300
 aagtcggagc atgatttatt tattgattgt cttccttatg agtggcggtc ggggacgagc 360
 gatggtcttt tcctaccaat ctatccccct aggagcatgc gcgtaatact ttgctttgat 420
 aactttaga tttttgc 437

<210> 10721
 <211> 424
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-021-Q1-E2-D2
 <400> 10721

cacaccttct acatgcgtgc caagatcttg ggcagcgtg gggaccggca agtcgcgagt 60

tcttacctcg aaggcgatcat tctggcaaac caagataagg ataacttcct cgtgccttac 120
 tttcccgagt aagtcctccc ctcaaccggc ccgtaacata tgaattctta catttcgatc 180
 gtttttcttt taacattccg tgttttctgc actgacacac gttgcacgct catcctccta 240
 agccccaat attccatggc cacgtatttc gaccggacc gtcagtcgaa cgtagactac 300
 acaaatgtca agaaggttct tgatgatgtt ctccccgggt acgccaatc tggaggcacc 360
 ttcaccaggc ctattcgtaa gtatggcaag cacgtgttct cccacaatac gacgttctgc 420
 tgcg 424

<210> 10722
 <211> 456
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-021-Q1-E2-D3

<400> 10722

ggtagcctg gcggtacggc gtcgagnatt ccaggtcgac ggacacgtcc gtaaccggct 60
 cagacatgat actcaccttc cataatcccg ttctgcacat cactgctctt cctgtgggca 120
 ccgtcttggt ctcatgatat caagcaagtt aagtatgtgt gattcgctat tagatatggc 180
 atgttcttct gtatatacgc aatcttgaca ctacgcatt ggatgctctg cagtcaacct 240
 catcactgga acctttgagg gtgtgtgcta gtcttcgtta ctccctgctc tatgcttcat 300
 cgcgctcaca gaaacactca gacatgtgct gtgtgaagca tgtctctttc tgtcctgcta 360
 tccctgcatt ttgcgtttgt caggcaaagg ggatgaaata cttggtacag ttacttcaca 420
 tgatcaaatc atttttccac gtctccgaga agtcca 456

<210> 10723
 <211> 418
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-D4

<400> 10723

aattacaatc agaccactc caaggtgcat atgcgtagtt gacagccagc ccacggacgt 60
 atcaatcggt atattgctat gccatgccat atttagctga tatttgccgg aatcgaagag 120

cctgtggttg aatgattgcg atcatgtcgc atcataaatg tcactcacat acgctaccgg 180
 attggacaca gtcgtcaatt actcttaa at gtgcttcttc acaagtaccg atgtgcgtaa 240
 tatctgttcc caccttgaag tttatgtcac cagtatttat taacgacatg gtatcgatgc 300
 tgctatcgat gagacagcta tttgtcttta catgctttca acactttcaa ataattgagt 360
 cattacatac ctgaacctac ttccgaatac atatttgcca ttgatctgct ctgcagcc 418

<210> 10724
 <211> 414
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-D5

<400> 10724

gggtccacga gatcataaca tgcgccccgc acaagagggga tgacatgatg tgagcgctgt 60
 ctccatgcag cgetctctta ggtatgatgg tttgccgagt tctggctggg ttgctgtggt 120
 ccacgactgc ttttaaggttt gattgagccc atttcgattg tcggtgaacc ctgacccta 180
 agcgactgga acttgtaacct gctagcggtt ttctgtatgc agtggcttgg ttgcctttcg 240
 gttgattttc cacaagatg atatagtgat gtgtaagtgt aaccttgttt tatgtgtatc 300
 gtttgcattc agacagactt agtcaagaag atgcatgcaa tgctactaat tttcaattgt 360
 ccaaagtgac atgtcggatg ctctcaggtg caaatgctg cgacctgaat ggtc 414

<210> 10725
 <211> 309
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-D6

<400> 10725

taacggtcct acattcccgg gtccacatcc acgtcggat gctcaaggat gatcgtaccc 60
 taaggttagt cctgatgtgc atcccgttga tactgccgca tagattgtc aggtgcatct 120
 gtgcgcttgc gcaagtcact gatgtcaaga acacttgact acttcattca cagagtcac 180
 tgttacaaga gttcgaacgt ttctctctgc aggcttcac gacattggcg tgatgtccaa 240
 cctagctagt attgaaactg cttccagcca attcacattc aatatcatca tccacgtgtt 300

tgccccacag

309

<210> 10726
<211> 331
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-D9

<400> 10726

ctcaatgggtc tcaacgggtgt ccgccaagga cgccacgaag gaggagtggc actgtaccgg 60
tctgatcggtc atccctcgtg gagtctatct tggtaaccgt ataacactag atcgatgctt 120
gacaatgacc gtattaatcc gctaggagtc atcgaccttg tggtcacagc aaccactatg 180
ctacaccaca tcagagaaca cctgctgtac aacttaagca tatgctagac ttgctacccc 240
atacatctcc accacactca tatttggatg tggctaataa aatcctcaat aattctgtcc 300
atcataggta tagtctccaa catccatctt g 331

<210> 10727
<211> 444
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-E11

<400> 10727

gtccacagtg taacatggga ccagtttcag caggcttttc atactgcca tgtttcagca 60
ggagtccaag tccaaagaaa aaaaccatca cgtcgttcag cgtcaagatc tcggtcgaga 120
tcagtttctt cccattcaag gtcaccgtca aaggaacgct ctccatcaag atcaccagca 180
aaatcccaat cccctgtcgc tgcattctcc gtcgtcaatg gtgaagcagc aagccccaag 240
agggacccaa gcaagagccc atcacgttcc cggctctcctg atgccaatc agagtaaaac 300
tgatgcgagg ttaggggagg tgagaggcgg agccatgggc ttcaaattct tcatattttg 360
tcttcgccga cttctgcata cgctgttata gtactatctg tgttcgggta ttctagggtc 420
cttgatgttt ctgtaaaact tggtt 444

<210> 10728
<211> 303

<212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-E12

<400> 10728

tgttccttgg agatgtgttt gtttcaccgg ttgataatac ctcttggtat ctgctgcaaa 60
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaga 120
 acaaaaaaat ccaaacttaa aatatgaatc aacacaaaat catacctctt ctataaatatc 180
 accaaaattc aaatcaatgg acgtcatttt acaacttcgt tatcagaaaa acccttcagt 240
 taaacaactt aatcacctta cagaacatca ctatttcaac atctggcata ataaccaaga 300
 ggc 303

<210> 10729
 <211> 408
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-E2

<400> 10729

tttgacagca aatggcggta gtgtgaccat ccattacccc atgcttgagc gcgacaatta 60
 tgggggtggaa gatgatggcg cggtcgaata aataaaggac caagaggctt tcgcctccct 120
 agcccaaggt gtgcctgatg agcatgaaag aatcatatgg gataggaaaa tttgtgttgc 180
 agctaacctt catgggttaat gagatgagc atattggata aaagatgcag gtaaacatag 240
 ttgtggaaaa gttactatgg gttgttcctg acaaatgtct accaatcttt ggcaccatag 300
 agtagtggag cgatgtgagg aagatgtcga cgatggaggt gattgggtgg ctgatgacct 360
 atgagctggc gttgaaggga cgtgaacgag gctaaaaaca agagcaga 408

<210> 10730
 <211> 306
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-E3

<400> 10730

cagcgtcaag ttggcgatga caaacgctgg cacacagtct gaatagaagg ctctgtgcag 60

tcacaaaacc ttgcacaagc tagcatgtgc aatgcttaac acagaactgc agtcacaatg 120
 ttatgtcacc gcaccatgtg tgggctatgt ctgcccaatg tgttgtgcca caactgtttt 180
 acaactgcgt ggttgcgcta tgctgcctgg acaattgctt gcatacaccg acaagttgca 240
 acagaatacc ctactctaatt ctctaataca aagatcatct gtttacttcc caaacaatct 300
 gccgct 306

<210> 10731
 <211> 418
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-021-Q1-E2-E4
 <400> 10731

ttcaagtatt cactgcaaga ttagcatgac gaatatattt catccaacag agtcacctct 60
 catagcacct taccatgccca taccagacat aaccgtcttg actgagaccg gcgacaaaact 120
 catgcctacc caaggcagag gttttcccg gttcctgccg gtatgcatgc aaggcatatg 180
 aggggtgatta tcatcacaag tgtgtccatt accaacagca tggaatcaac aacatgcacc 240
 catgcatatg atcatatcac atgaaataac aagtccttcg aaatgcggtg gtgttataaa 300
 tgtatcaacg atcacaccat aaatattatg ccgggggttca gaatgcttgc cttcaatgtg 360
 tggaaaggca cgggtgcactc caaaactttt gaaagtttcc tccctctctc caaaataa 418

<210> 10732
 <211> 442
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-021-Q1-E2-E6
 <400> 10732

gctgggtcgac gagaatcaat gctctgatga agactccatg atatctgctc cagcttcac 60
 aacatagtca tcatcgctat cctctgggtc tgagtcggtg tcgtcgatga tgatgtagtt 120
 ctctagacag gtgcaatctt cgtcttctcc tccagttgcg ggaaatcca tgaatacttt 180
 tagcttcttc ttcagaccat cgtccttctc cactagtgtg gctatttcct cctcatatcc 240
 atcgcgtgta gacttgagtt cttcctccag ctccatgatc ttgggtcatgg ctttcttttag 300

atctatcatg cctgcacaca tctggttctc ctggcgctga atgtgctggt ttaactcctg 360
gatgaaagct gcaattgatc tatccttcct ggtgttgatc atctcccatt gctcatctcg 420
gctcccacaa atctggtaga ta 442

<210> 10733
<211> 421
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-021-Q1-E2-E8
<400> 10733

cccaagcgtc cgatccatta cccagttaag aaggcccagt caactccttt atccactgga 60
aaacaagaag acaaatgccc agtatctgtt tgctgatcgg agctgtcagt tcttggtaga 120
cttactttct gccctcggat tcagaagagt actgtgtgtt ggaacaccaa ggttgcatga 180
gctgatcaag ttgacagcat caggtgacaa gaagtctaac attaaaagcc ttttattgga 240
tattgatttt cggatttcac agttttatat ggaagatagc ttttgccatt ataatatggt 300
taaccatcat ttctttgatg gaaagactgc ccttgaagta tgcagagcat ttttacagga 360
agataaaggc gaaggaatca ttatggtgac ggatcctccg tttggtggct tggttgaacc 420
t 421

<210> 10734
<211> 437
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-021-Q1-E2-E9
<400> 10734

ttcccagagt cgacttacac gtccgcgac tcgatcagca caactggata catgacacct 60
ttgactcaac catatggtat cagaattcca aattgcgcgg tgagaattca cactacatca 120
acgactttat caaatctgct ctacgagaca actgtccaat aacacgtgac caaattatta 180
gaggaagagc accaccttag tacaatatcg gatacattac acaatcttaa tatggcttca 240
gcttagacaa gttaggtcac taaagctgtt ttcaagtatc tggctctggca tgtgaatcac 300
atacagtaat tcattctggt gacaaaatta ccctgctcaa ccgaattacc cacaccacat 360

tgcaaaactca ccacaatgcg tacacttttaa cgctaagcaa ctatatctac aaaacaagag 420
tcgtcagtag ccactga 437

<210> 10735
<211> 430
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F1

<400> 10735

ccaccagggt gagaaaatgg gacatgacta catggatggt gaaagtctca agaagatgaa 60
caagaacaag aagcttggtta agaagctagc caagaagtac catgctttct tggcatcaga 120
ggccataatc aagcagatcc ctctgtctct tggccctggg cttaacaagg caggcaagtt 180
tcccactctg gttagtcacc aggaatctct tgaagccaag gtcaacgaga caaaagctac 240
agtcaagttc cagctaaaga aggttctttg catgggtggt gctgtaggca acttgtcgat 300
ggacgagaag cagatccaac aaaacatcca aatgagcgtc aacttccttg tgccctcct 360
gaagaagaat tggcagaatg tgaggtgcct gtacgtgaag agcaccatgg ggaagcctgt 420
acgtgtgttc 430

<210> 10736
<211> 425
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F11

<400> 10736

cgacgacgag gaagcgggat aggcacgcc gacgtcgatg cggaacaac ttctatatag 60
agttaaataa agtagtttta ttaattaaat caactagcta gttcaactac taaacactta 120
ctataaataa ataaagtagt acttactaaa acaaaactac tatatatagt aaaataaagt 180
agtttattaa atcaactagc tagttcaact atatatgaag cacttactat aaataaaata 240
aagtagaatt actagaaata aactagtatt tttctaacta attagattaa acactttctc 300
ttcttatttt tttcattttt ctaaatacgt actatgaaca aaagaaacat taaaaatcca 360
taaacaaaat tacaacagaa aaaaatcata aagattctat gaacaggaaa tctatgaaat 420

acaca

425

<210> 10737
<211> 436
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F12

<400> 10737

ttccaggggc cacacaatgg ctttaaactct gatgctcatc gtgatgaaat cggtaagatt 60
gcaacttata ggataaggac acttctgagg atgaatgcag ggtcaactgt atcagagtgc 120
gatttgactg gtgatctttt taacactctt gaacatcaca gggatctcat cagggatctt 180
aacacgtcat ccaacttaac tccgagcaga tgccaaacct ttaaggacgc cacgaaataa 240
ggagttatga ttccaagtga tattgatgtt acatttgaga attttccta ccagcttagc 300
gagaatacga agaatgtgct cttatcatgt gcaatcttac atttgcacaa gaaagaattc 360
attatgcagt tctccgaaat ttcatacta aatcagcgaa ttttattagc cgggccatca 420
ggttcagaga tttatc 436

<210> 10738
<211> 418
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F4

<400> 10738

tccttgggac tcagtagttc gaacaacagt gacgatcatc ggttggctat tctaccttga 60
tcgcctagac acaaggaaga atcggcataa gaggaagatt ctcgactctt cagcgtgtcc 120
tacatgtacc cactcggttg aggatcgaca acacctttt ttacttgtcc agcagctcgc 180
atgatctgga gagcaaccgg catctgccct ctttactctc ctatcacaag tctcttcagc 240
acgaagcttc cggatccgct gcctatcaca gtccgccct tcatgctcct tttgattctt 300
tggaaaatct gggacgcacg caacacgaaa gttttccaag gactagatgt tgtggcctca 360
aactccttga gagctatcct ggatgatttg agtgtttggc ctcatatcact agaactcg 418

<210> 10739
 <211> 381
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F5

<400> 10739

```
ctcgcggggtc cacactcacc actacactca gtcggcctat ggtcgccatc gctcccgcac   60
ctgcctcata actcggtagc tggacctgcc tacttcacca cgccaccaga taggtcgcac   120
cctcatccca aatcactttg tttacgcgtc cgttgtctgc atttttattc tggggcaatc   180
gattcccact gggaaccagc accccttgag gcaccggagc tcctatgctg ccggttggct   240
ggtgtctaac gtacggggga tgggccgcaa cttcgtcgcg gaatcagcac ttatatggct   300
atattacagt tgcgtaggtt ggaggtactg ccgccgccgg atctagataa cgacgagtc   360
ttgtgaattg gcccgggggc g                                     381
```

<210> 10740
 <211> 445
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F6

<400> 10740

```
attcgcgggt ccaccgcaag ctgcaacgag atccatcgaa tctcttcttc tttggcggtc   60
tgcaccttcc gtgcgggctg tggaggacgg atgacgcggt gctgttaggg cgctgacagg   120
caacggttct acgtcccctc tccgatcagc tctttcatgg gacaggcaat tgaaggatatg   180
gactacaaca gtacagactg ttatatatct ggaaggcgaa attttggggc ggtacctgct   240
tattgaatga cagacagtta tataagagag aatattccta ggtttgccat gacatacaag   300
atggtggcaa ggccttgctc gtttttagagg acatgggata catacaggaa gcagctgaaa   360
ttgatgttgg caagtctggt atttacaata aatctcatga agtcattcaa catacgtgtg   420
cgaacaaaca atttgtcttc ctgga                                     445
```

<210> 10741
 <211> 397
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F7

<400> 10741

ttcgcggggtc cacacaagag tctgagacga tgaggacgcc atcttgtctg ccgtatccgg 60
tacagccggg tcgagaccgg aagatgacgt gcatgtagta gtgtaagcaa gcctcgactg 120
cccgtactgc agacgcaagt gcgtcacatg tgggatctat atgtgccaat aagacgtcag 180
gctggtcgta cgatagtac agacacaact caaccatccg tgcgctcac gattcgtcac 240
gttgatggga aacgttgata caaagcgtgc ttcacgagct ttgcactagc tcggccactc 300
cttccgcacg gtcactctga aggcacagtg cagacgcagt cgcagcagtg gttggctgat 360
atctcaccac tccctgtgat ggaagtagtc gtacctg 397

<210> 10742

<211> 451

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-021-Q1-E2-F8

<400> 10742

gggtcgacac aagacacaaa ggactcatca gaatagagct atgcaccca ccaacggcgc 60
cagaaaatag tcttgataac ccacaagtat aggggatcgc aacagttttc gagggtagag 120
tattcaacct aaatttattg attcgacaca aggggagcca aagaatattc tcaagtatta 180
gcagctgagt tttcaattca accacacctg aaagacttaa tatctgaaga aaagtactta 240
gtagcaaagt agtatggaag taacggtaac ggtggcaaaa gtaacagtag catttttgta 300
gcaatcgtaa cagtggcaac ggaaaggtaa ctaagaaaag atcaatatgt gaaaagctca 360
taggcaatgg atcaatgatg gataataatg tcagatgtga ttcctcatga aacagttata 420
acatangtg acacagaatt agctccaatt c 451

<210> 10743

<211> 402

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-G1

<400> 10743

cggtgaccac aagatcatgt acgcgctcac ctccatcaag ggtgtgggcc gccgcttctc 60
caacatcgtc tgcaagaagg ccgacatcga catgaacaag agggccggag agctttccgc 120
ggaggagatg gaccgcctga tggcggtggt gcacaacccg cgccagttca aggtgccgga 180
ctggttcttc aacagaaaga aggactacaa ggacgggagg ttctcccagg tcgtgtccaa 240
cgccgtggac atgaagctca gggatgacct tgagaggctc aagaagatca ggaaccatcg 300
tgggtctcgt cactactggg gtgtgcgtgt ccgcggtcag cacaccaaga ctaccggcag 360
gagaggaaag actgttggtg tctccaagaa gcgataagct gc 402

<210> 10744

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-G11

<400> 10744

gtaccgctcg taaattccgg gtcgacaaga gaaattcagc aatgcatgtg acgatgagct 60
agtgttagta tgtgagattc actaaatcgc atacaaagta atgttttgag tgccggatgg 120
attggtcacc ataccgactt actcatacta ttcgctttgc tatatgggat ggaaaatctg 180
agtgacttac ctatattaca gagacaatga tcaagtcctt gttcagaccg tagaatggta 240
ccataacatt tcccttgtag actgcagctg ttgccaactc gtaggacata ctgtgagggt 300
cactgcacac ccattttcct gcatgagaca ccatagcttg ttgactacca tgagatatct 360
atacttgttt agtattgcga gcagaatcat cagttcagaa catacagtct cgggataacc 420
gtaccattat gagaagacat g 441

<210> 10745

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-G12

<400> 10745

cagctagaag tgatcaagat gtgatcctga aactgcttac gcacaatcat aacaccaaga 60

cegtgttcac ttcccgaact ctgctgaaaa gagaccatca cggctacaca cggcgttgat 120
 gcgtttttatt tcagtcaagt gtcaagttct ctacaatcgg atattaacga attcccatct 180
 gccacataac cgcgggcacg gctctcgaaa gtttaaacc tacaggggtg tcccaactta 240
 gcacatcata agctctcacg gtcaacgaag gatacttctt ctcccaggaa gaccgatca 300
 gtctcggaat cccggtttac aagacatctt gacaatggta aaacaagacc agcaaagatg 360
 cccgatgtgc cgacaaatcc cgacaggagc tggacatata tcgtttctca ggcacaccgg 420
 atgaacacta tgttcaa 437

<210> 10746
 <211> 420
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-021-Q1-E2-G2
 <400> 10746

gcgtctgcta atgctggtag gctgatgctc tgctcccgca cgtccatctg cgtgctgctg 60
 ttgttccgct gccctttgct gctctactca gctgatgcgt tctgctagcc tacttgctag 120
 ttgatgcgtt cctgctagcc tatttggttag ctgccgctgc tgatctttta gtcattgcat 180
 tagtctggca tgtgcttttt ctatatcttt cgtgcgtcc accaaattcg ttgatatttt 240
 gtgttttctc atgtcatgtg agtccaccat acctatgtct gtcagccttt ttctggatcat 300
 tgtcctctct ataggatttc tgtggcctct ctttgcatg ttgatctaag cccattccct 360
 tgccgccgag cttctttcgc cgttggtttt catgggccat gattcttttag gcaatgcttt 420

<210> 10747
 <211> 444
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-021-Q1-E2-G3
 <400> 10747

ctccgacaga aaacgatata tatctcaccg aaacattggg acaccttcgc ctctatcaag 60
 tggatatcaga tttccagggt gctcgggtgag atttttacag tttttcgtag tttagatcga 120
 gtctgttctt catacctaca atccacaaaa aagccaaaaa aattagggtt agttcatcat 180

atctgaacca atctgagcct ttgcatagtc ttttttagagt ttgcttttgt tgaatttgcg 240
gttgcatcgt cgtgtcgagt tgctggctct agcgtctagt cccttagagt ttcgagttct 300
gttcacaggt tgtcacgccg ccgccacacc atcgtcatca tcattgcctt atactaccac 360
cccaccatat acatcgccgc tgccatatac aaccaccaat ccgagtccac atataacatc 420
gccatataca accaccaatc cgag 444

<210> 10748
<211> 395
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-G4

<400> 10748

gtcggagact gacaccgcat ctacactaag catccatccc ttccccaagt ggacgtgatc 60
caccgggatg ttagagatgt ggccacagtc gttttgtgcg agagagtgtg aagagagcaa 120
ccccagcaag caaccgtgta ggatggcccg tcctgactat gtatatagtg gagcggtttc 180
cttttctctc catatgaacc tatcatattg cgtacgtgcc actgaagaaa aataataatt 240
tataaatgac gcgacaccta ctactcgttc tcctataacc ttgcgcttgg catctccaaa 300
atattaacct tgtgattggc tcttcgcctc ttcgggaagt cgagcaataa tggtagtgca 360
gtatatatcg ttctggctat atgagaccga atgaa 395

<210> 10749
<211> 362
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-G7

<400> 10749

gggtccacgg acacatatta gagtgggttcg aatcaccatc tgttgacgtc agtcaagcaa 60
cgggcagtga ccagtagcat aaaacaattt acatcttagg tttcacctga catcgcatcg 120
aacacctaca attctgcaga taaatatgac ataccggcgt cggcagtggt tcatgaagaa 180
tctaacgtat gtatcacaca cttaattgac aacataacac ttgatttgac atcagttcac 240
gccattgagg atgatgtggg ccacacctaag taacgatatg gcctgacgaa ctcgattaca 300

agttcggatt gacgatgaca gtgctcctag gtccgtatct atagaacata ccagattgtg 360
ga 362

<210> 10750
<211> 212
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-G9

<400> 10750

cacacgtcct agactcgcag gtcgacccaa cccccaaaa tgattcaatg gagtctgcaa 60
tgaaggcaag tttcggtaat acataagccc ttactagtta agtataatta ccacaggtcg 120
aatcttgat aggcacacaa tcatcaaacy gtgggtatctg agcatgagtg aaaacagaaa 180
aggacaacat tgacgcttaa ttctgcatga tc 212

<210> 10751
<211> 409
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H1

<400> 10751

caaagttggt cgtaatatgc cctgaaggca ttaataaagt tgttattgat atttccttat 60
atcatgataa atgtttatta tttactctag aattgtatta aacggaaact tattccatgt 120
gtgaggacat acacatacac agtgtcactt gtatgcctct acctgactag ctcggttgatc 180
accgatgggt aagtttaacy tccatggata tagagtttcc atttgaacaa cagggtcata 240
tcattataga atgatgttat tgacttgaac caaccgtaag cttatcacta tgattgttta 300
atttactgct attgctttct ccataacata tacatgttcg tatgactatg agattatgct 360
cctcctgaat attggaggaa cacatagtgt gctatcaaac gtcagaacg 409

<210> 10752
<211> 263
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H10

<400> 10752

gactcgattc agggcacagg atgggatggt caagtggagt ttgcattgct agcaagctgc 60
attcgggact acgaggggaa tgatatcttc actgtgctca agattcccat ggatgtctcc 120
cactgtcgcg cgttgttgca tcttccatcg tggatattca tcgaacgacg tgttcaattg 180
ggtcgtcatg gcatctaaca gatattgaga gctctatggg ctaagccaca tcgtttacat 240
gctgatgtat tgcgtgctcg tgt 263

<210> 10753

<211> 215

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H12

<400> 10753

tggtaagatt ctgatgcagc tctcttactt gataagatga tgataagaac attcatcatc 60
ttccttgtagc atatctcttg catctttaat atcacacata tcagcattac catacattca 120
gtgagtcagc tcatgaactc aatcattcaa cgtgtcgttc tctcggtcgg tagcatccta 180
tttaggcgca tgcttttcga cagcgaaca taca 215

<210> 10754

<211> 371

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H2

<400> 10754

ggtggataag ccaacatcag acacaccagc ggagtagctt gctctgaaac cacatgaacg 60
tgcattatat cgactatacg gggggtgaat acgcgatttt tatgaattcg tctagtagga 120
atttgccagt gaggaacttc cttagcgaac aactacttgt aacagaataa gtacgtatac 180
gtaagcatat cacagtacag acatagtcac catgatgaat tggacacaag catagcgtac 240
acaaagcgta atcatatgat aacacacgat gaagacaaac atactgacga aattgaacta 300
acgaaattga gaaagtcac agtcagagtc gtcaaacata gatatgaaca atcagtcac 360
acagttatga g 371

<210> 10755
 <211> 413
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-021-Q1-E2-H3

 <400> 10755

 atcgacaagg aaaggagggt gcccgaggcc acaaaggagt tggactccct tgcggacgtc 60
 gccggtatgc tcatcgacga ctactacaac aacatgagga agaagatcac caacgattaa 120
 cacaagcact ggaccaccct gcctctgacc atgaggcaca tcgagtacgc ggcaaaggac 180
 gcctacgcag cgtacgagat gtggagccgc atcaccctca cccaggacgg gcttcgccgt 240
 gcaaagctgg agaaggagga gcccgaagaa gcgcgccagg agtagccaag gagactctaa 300
 ttggtgaaga agcagacggt gccggccaag agccaacatt gctcgcgtca ttttagattt 360
 atcatcaaat ttgttttttt gtttgcttat gtaacgttag tttgcctgtg atc 413

<210> 10756
 <211> 388
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-021-Q1-E2-H4

 <400> 10756

 tatcatctgt ctgtggatta gtagccgtat ttagcgttac tctatatgcc atgactaaag 60
 gtgccatcaa ccagttaacc aagaacctag catgtgaatg ggcaaaagat ggcataagaa 120
 caaactctgt tgctccatgg tacataacga cttcgcttac agaaggactt ttggctaaca 180
 aggaatttga ggcctccgtt gtgagtcgaa ctccactggg gcgtgtcgga gaaccaggag 240
 aggtatcatc gctggttgct tttctttgca tgcctggttc cacttacata acaggccaga 300
 cgatctcagt ggatggagggt atgagtgtca atgggttcta tccagcttga agactannca 360
 aggaagaggc atatttcgct ttgttgcc 388

<210> 10757
 <211> 353
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H5

<400> 10757

gggtcgacgt aaacgtccaa atgagatatg cccatcgcggt gggctggcag acacgatgcc 60
agctgtcact tgtgtactcg ttgacagtgt aatatcaatt aaagcaggtg acctgggcta 120
gggtcatgtg ctcagcgggc agatagaccc agtgcattgt ttgagtgcag atcggtatgga 180
gggtcaagaat gtgtcacatt gccacacaat gtttctgacg tctcgtgaat tccacaatgc 240
gatgaatgaa cgtgagctgt cttcactgac agctgtgctc aagtgcgtca aggagcaaat 300
cctggctgag caatatctgg tggaccacaca tcagtaaatg ctgattcagc tgg 353

<210> 10758

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H6

<400> 10758

aactccgtaa tggtcgtagc cggacttttg gttctactat taaccaaact cgggtggggac 60
agtcattctc agcttgggca gagccttggg cagcttggac tgcgtcactc gtgggtgctt 120
gggagctttt tctgtcaggg ctgggttatga ggtccgatag gcgcttcgac ttaagctctg 180
catggaatag tcgtcttagc accttctcgc agtgggtcat ctgttagctt gggtcgccgt 240
tccgttcacg gagatctgtc ttcttctcga tctgtgcac aggtttcacc ttccacatcc 300
acctctcatt tctggtcagt tccgtactct tccctcacgt caccacgtta gcctccactc 360
gcatcacgat tatcaggctg ctcatgttct ccatcccc 398

<210> 10759

<211> 407

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H8

<400> 10759

gaattcatct caattctagg tgggggtgtaa gtttgaggtc atgcattgca taacaatgtg 60
caacgtaggc ctcgtaattc caggggatcg tcactcttca caggttccta aacatggatt 120

ccaatttcgt ccgaggtaaa tgcattgcaca tcattgggtac aggatcgaca taatacattt 180
catctagcgt atgacgtctg tggtggccta gctgactaac tgtatctggc ctgtaacata 240
gcgttcacaa attgatgagc agcgtactgc tttatgactc acattgacgt ctataggatt 300
gataacatgt atcctacagc attattacca gtcattcagc agtaaggcca aggtgattgc 360
ttgttcattc ctatgcattt atctatcact ctctcagcaa gcttgtc 407

<210> 10760
<211> 141
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-021-Q1-E2-H9
<400> 10760

cgcagtgttc cgagaagatc ctcagacggc ctggctgctg tgatgatccg gcgagtggtc 60
cgtaaaggca gctcacacac attaggcgctc gctctagctc attggctcgc tctcggtcca 120
tggcggctctt gtgcctcact g 141

<210> 10761
<211> 121
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-022-Q1-E1-A3
<400> 10761

tccttcacca atcaatgatc acattaattg cagcctaacc gcatggctat ctcccgggca 60
gctccagccc ctgctgcgaa ggacctgaca tcaagtcatg agtcatttgg ttgtcaattt 120
g 121

<210> 10762
<211> 424
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-022-Q1-E1-A4
<400> 10762

gggtcgacca cagctgggaa ctcgatttca gtcagatcca tggcgtctt gggttgcgag 60

ggctcttttag tgaaatgggc ttcctgaact gtcgccgtgt gaatatgctc caagaacaca 120
 ttgctgggaa tggtttctct cttggaacct atctttgcca attcatcggc tgcttgattt 180
 ttcagttggg ggacgtgggt gagttctaac ccctcgaact ttttctcaag ctttctcacc 240
 gcgttgagcgt aaccagtcac ggctgtactt ctgacgtctc actcctttat cacttgatta 300
 actaccaaact ctgagtcgcc atagaccatg aggcgacgaa cgccgagtga gatggccatg 360
 cgcaacctat acagaagtgc ttcagagtga atctggaaga catatctgag cttgtctcct 420
 cggt 424

<210> 10763
 <211> 421
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-A5

<400> 10763

ctcccgggct gaaaacttca tcaagataca ctgctttgtc tatgtcaaca gttcgttttc 60
 tccaagccca gaacaagcct ggaaaattga actgtataat aattttgcaa tagacgggaa 120
 gcttggtgta aactatgctt tatcggcagc gtgggggttaa aagattggat ttgctggaag 180
 aagcgaatgg atggaaaacg ccgtttgaaa tttgaccggt ttacgtgtat agctgggggt 240
 gtaattggtc agtcaaagag gcactagctc tcacatatgt tgatgatgaa agtaaagggt 300
 cttgcgaaac tgccttttct ggcattgaac tgtccaagtg ttctctctct ctacagtatg 360
 tttagtgggt cttgattcat gtcgtgtgtg tgattggggc tagagaaacg gatggatttt 420
 t 421

<210> 10764
 <211> 344
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-A7

<400> 10764

ctgcggggcc gaccatctc actatgccgc ttcataataa gcagacgata ctgctctcgt 60
 ggctcgggag cttcctcaag gttgggaaca cctgccccaa ctggaaaaag gccttgaagt 120

gttgtggaag aagacctttg tgcggcctta cgtcgaacag cacgggaacc ggtcgcagtc 180
 gtgtcggagt tgagatctcc ggtggcttgc gcaggggaagc tatcgcgcgc cgtttcgtaa 240
 gtagaacatc tctgaaaaag ggtttagtcg tataagttga tttgtgtgag gcttgagaat 300
 atgtttgtgc gctgtgcttt gtgggtgcttc ttcgggtctt cgcc 344

<210> 10765
 <211> 425
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-A9
 <400> 10765

ctcgcgggcc aacaccttcc acaagcatgc aacgatctag ggcagcgcta gggaccggca 60
 agtcgcgagt tcttacctcg aaggcatcat tctggcaaac caagataagg ataacttctt 120
 cgtgccttac tttcccgagt aagtcctccc ctcaaccggc ccgtaacata tgaattctta 180
 gatttcgatc gttgttcttt taacattccg tgttttctgc agtgacacac attgcacgct 240
 catcctccta agccccaat attccatggc cacgtatttc gaccgggacc gtcagtcgaa 300
 cgtagactac acaaagtca agaaggttct tgatgatgtt ctccccggct acgccaatc 360
 tggaggcacc ttcaccaggc ctattcgtaa gtacggcaag cacatgttct ccacaatac 420
 gacgt 425

<210> 10766
 <211> 445
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-B1
 <400> 10766

actcgcggat cgacttccat cacaacgata ttcacatca catcgaaaga cgggacacct 60
 ttgcctctat caagtggat cagatttcca ggttgctcgg tgagatttta cagtttttcg 120
 tagtttagat cgagtctgtt cttcatacct acagtccacg aaaaagccac aaaaaaaaaat 180
 tagggtagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt ttagggtttt 240
 tgctttgttg aatttgcggt tgcacgtcgc tgtcaagttg ctggtcttag agtctagtct 300

tttagagttt cgagttcttg tcataagttg tcacgcccgt gccgcacat catcatcgcc 360
 ttgccatcta ccaccattgc ttatccgcca ccgctttgaa cccgtatcca tataaccacca 420
 ccgctgccat atactaccgc catat 445

<210> 10767
 <211> 425
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-B3
 <400> 10767

gacatgcgac tccacacgat gaccatgtat ggatgttggt tccatgggggt cttcttggtc 60
 ttccggcgttt tccaaagtat cattgtctcc tgtgccggta ttgctgtcct ttccgcgacg 120
 cgatttatag cggcgccgat tacatctaag ccttggtggt atcccaagag ggttggtcccc 180
 ctccgggaca atcttaatca tctacgtcgc aatccttaag tgtgtccacc atctataaaa 240
 cgcattgatga agttgccgtc caacgtccgg taaatggtgg gttttgggcc tgcctctctc 300
 tggcatcgtc gtccatacca tcgatgtctt cagaggcgta gtgaaacatg tcagtttagat 360
 cctcgacagt ggggtatgaag ttggggcggg ttggaagtaa aattccctat tttcaacccc 420
 taatc 425

<210> 10768
 <211> 221
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-B7
 <400> 10768

ggcaccatag tcagtcgtat caccgacgat gaagagtaac taaggtaata cgtagatgta 60
 gtacgtagga tttcttttgc atgctttgca tgaatctagc agataaaata tgagagaggc 120
 gaatgcaaag tgactaattt aagaaatgcc tagtcaatgc acacatccac ggacgtttga 180
 ggggatttgc caagtccgaa ggtagatgac tgttttttta t 221

<210> 10769
 <211> 410

<212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-B9
 <400> 10769
 ctgcggggtc gacattagac ccaacattga gtcgctctag cagcctcggt ctagttgttt 60
 atgggtagtg cgagccctac agatgatact acagacttgt tatgatgctg ttttggtcct 120
 gagctccggc tccgtttggt caatggaatt tgttcaatga gccctgtgga tggggcacgt 180
 cgccaagttc gcttatagac gatgaatgtc cgggtgtaaag tgtatatgat tgggccgtta 240
 ttggtggatt accaatacga tggtttcatt ttttttatgt cgttgcagga ttcaatgaat 300
 ccatttttgt ccgtacgaat tgttgaacat cgttcatgca tgtcactgta tggtttgaca 360
 taggctggtg aactaaactt tgcctgcatc tgaacatcac gtacatcgac 410

<210> 10770
 <211> 359
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-C3
 <400> 10770
 cctggtggag cgcgacctca tcttgaacca gatgcacagg ctgacggcga ccatcgcccc 60
 tatgcccacg gcgacaccaa cgctgacgac cagcccgagc acagaagcca cgccgacgcc 120
 gagcccgact acacccacgc cgaccccgac cagtctcacg gcagaggagc ttgccgtttg 180
 atgtgttcca tgtctatgat tccttccttt ttgatcgctg aacttttggg tgtgtttgat 240
 tgccgaacta tggcatgatg atcgctgact tgtggcatga tgatcgccga acttttggcc 300
 ttttttggca gcaggaaaga caagtttgaa tttttgggcg tctgggggag aaatctggg 359

<210> 10771
 <211> 316
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-C4
 <400> 10771
 gggacgacag tgtaccccaa attgcctcgt atgaactgat ggccaagggt gtagctttcg 60

atctgctcca catggccaag caaattggcc cgcagtgcga agccgccgaa tacgaagatc 120
tgtccaggga ggaaagcctc gccctggacc gcatcgctag cgatgatcga aggagacatc 180
aagccttatg atgacgacac agaggaactc tcaatgaaag caccaatgtc ggtgtcgaaa 240
ccggcgatc tcgggtaggg ggtcccgaaac tgtgcgtcta aagcggatgg taacaggagg 300
caaaggagac catgtt 316

<210> 10772
<211> 394
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-C7

<400> 10772

gaggggagag agagagcaca catggaaccc accagtaagt gaaggcgaat agtactaaac 60
ataatattac atgttatcca ttaattaggc tgtggtaata taaaaacatt atgtgaacaa 120
agggggtaca acaaacattg ctattctacg tatgttgctt attgacgtgc ggcttgaagg 180
cccggtcgca tgttcgatcc tcgtccttta ttttttaatt tgtatatggg tccaaatttg 240
tttcatgaca tgtgggcccc tcgggtgtgta gttttagca ctttaatttg tgggtcgaaa 300
tttgtttcat tccaagtgga ctatcgggtg tagttttgt agcttattta taataattaa 360
agagaacaac atagtttttt caataatacc atgg 394

<210> 10773
<211> 421
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-D10

<400> 10773

gggccgacct gcaacgccat acgtgaacgc agaagcgca caaggcacga aggcgtactg 60
cagcgctcgt cacgtgcggg agcacagttg gacattggag tccgtcgcaa ggatgtgagg 120
gcgtggagca gggtcagtcg tgtgcggcag cgaccgatta tctatttttc cctcggtcga 180
tcataggcat tcaatctggc gctcgtgact tctaaacaca gcagaagtct aaatcagatc 240
gaaacattat catggaagaa attacaaagc tgtcctcgag ccaaatactaa cccgaataat 300

atcaatcgtt ggatgaactt aatactaccc attacatccg gtagtatgat gtaccgtaaa 360
 atatctcgac atgacatagt ttgttttgtg gttgcttacc acatacatca tgtgaaactc 420
 t 421

<210> 10774
 <211> 412
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-D11

<400> 10774

ctcgcgggcc gacgctgctc acaaactga gtcgggcgaa tggtaaactg tgtgtgaaaa 60
 atttgaagca tggggtgttc tttgagtgtc tttgttatga gtggcggtcg gggacgagcg 120
 atggtctttt cctaccaatc tatccctcta ggggcatgca tagtagtact tttcttcgag 180
 ggctaataaa cttttgcaat aagtatatga gttctttatg actaatgtga gtccatggat 240
 catacgact ctcacctttc cgcaatttgc tagcctctac ggtaccgtgc attgcccttt 300
 ctcacctcga gagttggtgc aaacttcgtc ggtgcatcca aaccccggtga tacgatacgc 360
 tctatcacac acaggcctcc ttatatcttc ctcaaaacag ccaccatacc ta 412

<210> 10775
 <211> 426
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-D12

<400> 10775

ctcgcgggtc gacatggctc tcaatactga gtcttactat ataagtttgc catttggtc 60
 ccggagtttg aattaccatg ggggatggca agtcacagaa tgcaacgtta tgcatacgag 120
 cataattttc agatatacaa gaatgtgagg ctctgtatc gaaaagaaca gatgccgggt 180
 gtcaattaac aagaagcgta ccgagaacga cgttgggatc atcttgagct tcttcggcag 240
 agatacagtt gacatggcca cgtgaagcgg tgaccggttt agcgtggaac acttttcctg 300
 tcggcttgcc acggacaaca gcttttagcag attgattggg gttggtctgg gggcactcac 360
 tcatatagtg accagattcg ccacacttta aagaggtcat ggaactggta catggaggag 420

cattat

426

<210> 10776
<211> 448
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-D3

<400> 10776

actcgtggat cgacagtact cattatagta agtcgaatga aagaacttct actagtaaaa 60
aagtgatttc tgttgaagaa attaatactt tgagtataaa agtagatgag cttatgaaaa 120
tggttgctag taaaagtgtc catattgatt gtaattttgt gccattctct actttgattg 180
agcaaaataa tgatctcgta gatgtgaatt ttgtctctca aaacaatttc aatagtaatg 240
cttatagagg taattttaat cctaggccat ttcctagaaa ttcctctaata atttatggaa 300
attgctaagg taattattac aataataata ggatgcactc taatcttgaa agtaatgtta 360
aaggatttat taatacccaa aaggttttca atactatggg agaggaaaaa ttgagtaaac 420
ttgatgggat gcctaggagc atggatag 448

<210> 10777
<211> 325
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-D4

<400> 10777

acaccaggcc ctagactgag tcttagcact tgctgtgcgg tgcgccacgc ctctcgctct 60
acggtgctcc accgctctcg tcgttcctgt aaccgcaacc aatcgacgtt gacgcgcta 120
gcttgccctg cggcgctcca tcgatcatgt tgtgcggcga gttgcagcct ctacgcgctg 180
acatgcccat cttgatccac agtgctgaaa cgcaattgca ccaaagggtt gctcaagcct 240
ggcgatgacg cacatcacgg gatcgtctaa ctcatcgccg gggagcgctg cagccttgaa 300
gggccatggg tcccttatag ttttc 325

<210> 10778
<211> 379

<212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-D6
 <400> 10778
 cttggcgcta cacgttctcc caagacacga atccagccgt gcgttgctga tcgatggaac 60
 ctagctaacc cgactgcgac atggctagat acgtgtcgat attcactggg tcatccatat 120
 atctttcgtg gtttacatcg tcccgtaaag gaaagagtca tatgtgcggc cacgcatgga 180
 ctgtcacgta cgaatgtagt taaaccatat tgtcctcgct agccctttct ttttcatttc 240
 aaaaggaaac caattaagaa tgtgtgttcg ttgtgtgtgt gtatttctag ctagtccaat 300
 aaagggtcaaa ctccaagtgt tacgagttat gacacgtttt tgtgtttctc accgggggtt 360
 ggcaatcttc gtggtaaata 379

<210> 10779
 <211> 435
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-D7
 <400> 10779
 tcgtggggtcg acgtgagaca ctatactgag tcctactaga tctccaattg ctgtgggggg 60
 ggggggggagt agttgtagca tcccaacaat cgatacacta tcaattgcta aaacgtgtgc 120
 acttttgat gtctgataat tgcagggaaac gtcggatgtg attgcaagga agtgggtggaa 180
 gtcacgaaga atggcggtaa ttctctaggc gtggcggtag ctatatatga ggagtgtact 240
 tctttttgtc ggactttcac tagtgtaata ctttcagact gtcctacgaa ggttaataga 300
 gcagcacata atttagctca gtttaccgag ggaaacaaa tgtggcaaga atccctcgat 360
 tttctttgag atgttctagc cgatgatgta actctcattt ctgaataaca aaaacaagcc 420
 atgatggttt ttctc 435

<210> 10780
 <211> 332
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-E1

<400> 10780

tggaagttaa ttggttggtcc taacatataa ccaggaggagca ccttgaggac cgtcctccag 60

gaagcagtgc agacagacac aacacacaac agtactttgc catctaaaga tagcagaagc 120

attaccaat acacatacat gggcaaaggc ccacagaact ctgcgcgcaa gaaaatagag 180

caccctacac acggggcgaaa cacacaacag gacatggtct tgtgctaaca tatgaaacaa 240

tggcccaagt agtcagcaac aacaagctgc tacttcttga acttgcggtg ggttttccct 300

tgaagaggaa agggatgatgc agcaaagtag ag 332

<210> 10781

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-E11

<400> 10781

ctgcggggcc gacgtaacca tctagattcc gacatctgaa gcccatgtgg tgatcggtcg 60

ccaacgtgcg gcgcctacca aagttgccgc caccatcgac gtccgcgacc ttgcggcacc 120

tgccgccact gtggaatatt gaatcgacct catctcctat ccccgttgca tgcattgtgtg 180

tataaatcca tacgctggcc gagcgcacgt cgctttcact aagaaacaga tcgaatgcat 240

tatggtcggt caacttgacg atgagcagca agccagcaac agcaaggcgt ccctcagaat 300

gtatatgcat tcacatcttt ttgtttttgc gggaaaatag actttgttct tgcttcgatg 360

cgtataaacg tatctctcct tatgcgacgg gtgatgtaat atgtcacatc catgtacaag 420

ctggtatacg gaaaa 435

<210> 10782

<211> 393

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-E12

<400> 10782

actcgggggc cgacgtgaca cccgaaagtg agtcggggcaa gaagatcacc ttcctagaag 60

gaacaatctg attttttctg cttatttgca gcgtaaacta tgtacagtaa tcattagacc 120

atctttgaag atctgacgaa caaaagcaga atgggtcttt ctatactggt cgaccccccc 180
 tccccccccc ccttgcggttc tctcgaggg agtggctagc gcgcaacact gccatgctcc 240
 tctgctgctc cgtcatacaca ggggtgggacg gcgacctcgc cttcctgttc attgttctgc 300
 cggtagcgac gttctttgtc caggatcatc cggacagggg ggtcctccag gccatgcgtc 360
 taggcatgta ctgcaacgcc gaccacatgg cta 393

<210> 10783
 <211> 432
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-E2

<400> 10783

attcacggat cgacataatc cacaagctag cctcagactt gccttgcttg catgatcacg 60
 caagacgtct ccacccttcc aacttttaac ccacatggtg ggcccataac ccacagttcc 120
 acaggatcaa aacctgactc tctgtacac ccccggtttc caaagttatt cccacgctt 180
 gacttcgtat gtaatttacg ggtcaccttc ctaatgctca attctggcat cagacacaat 240
 aattattccg tggctttaaa accactttca cttctgact aggcattgaa cgattgcctg 300
 gctgcctgaa acttcttatt gtaccttcca actttactct cgatgtgttt atttgttcaa 360
 ctcgagaggt actcatatgc tcattcatgg gttaatctca tatcattacc cttataacat 420
 actaccgttg cc 432

<210> 10784
 <211> 393
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-E3

<400> 10784

gacattagac cttatgatgg gtcatatcac tctatcccca aatcctcttt tattccctaa 60
 ctatactata ttattattat ttatcctctt tttttcttt ttatcaatgg gtttaagatt 120
 cattagcttt ctcattctac tctttcacia aggaatgcga agagaactca atggatctta 180
 tcctattcat tgaatagatt tcttttttat tagagtatcg gcaagaaatc ttgggtattc 240

actctatttt taagttttat ttaagtaaac catgcacaat gcataggact aaccccccat 300
 tttcaaattt taaatttgaa atactttaat taatttttag tccttttaaat tgacatagat 360
 acaaatactc tactaggatg atgcacaaga aaa 393

<210> 10785
 <211> 401
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-E5
 <400> 10785

agtgttttgt caaaatattc ctaactattt tgacttttta ataaaatatt aaaaagaaat 60
 ccccatataa gtgcatatac aaccaggaac caaagtgtat ttccaataaa gccgtggcca 120
 actcagtctc tccatgacca ggacatgcaa ccaattagga actgaggaga gaggaggaca 180
 tgcaaccaat ggagaccgga gccctcaatt tactatgttt tccagcagaa atcgctatgc 240
 gcaaccggac gtgtacctgg ccacatcccc cactaaagca cgtgtcgccc acctattggt 300
 ccgattttgg ctgataagaa aagtcaaaaa aacctggtaa actaaacctg accaagttta 360
 gtatatttag aatatataga gagaaaatca aatcttttgt a 401

<210> 10786
 <211> 393
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-E7
 <400> 10786

actgagtcgg attacctcgg gcagggtact tagatgaggt ctgtgaccct accctaggta 60
 tatgactcca tcagatacca tcccatcata ccacatcata atcattctaa tagcatgttg 120
 gcacgcaagg taaaccatta taactcatag ctaatcaagc atggcacaag caactataat 180
 ctctaaatgc cattgcaa atgtttactt cataataagc tgaatcagaa gcaatgaact 240
 catcatattt aaaaaaaca gagaggtcga gttcatacca gcttttctca tctcaataag 300
 tccatcatat atcgtcatta ttgcctttca ctctcatgac cgaacgatgt gtataataat 360
 aagagtgcac gtgcattgga ctaagctgga atc 393

<210> 10787
 <211> 178
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-022-Q1-E1-F1

 <400> 10787

 gaccgcagca tctaateggg gcgtgcacag tcggtgatcc acctcgtgag tgacccgata 60
 gaaaaggagg atttcaagta caagatcgaa atgcatacgc ggattggcat tctctctgtg 120
 tccgggagca ggacatcgtg cgtcggggcgg ctgaggacga cgtagcaggc cgggtgcgt 178

<210> 10788
 <211> 361
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-022-Q1-E1-F10

 <400> 10788

 ataacacccg aaagtgagtc gtattagacg ggtgacatct ggcccactaa cgagctgaca 60
 agtgttcctc tcggccaatc agaattttac acgtggaaat ttcccattgg tccgggctgt 120
 ttttttctta aggttattgg tccgggctgt taacgggtta tcggatccaa aatccgacca 180
 gatagcttaa cagcgttcct ttatgggtga tgccacgtgt cggtcacct tgataaccac 240
 ttctgtgatg cgcgatttat cgtaatggaa gtggacattt ccgtgatgat aattttggta 300
 atgtcatgga acacttctac gacagcacat gtatgactat cttgattctg tcataaaacc 360
 g 361

<210> 10789
 <211> 414
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-022-Q1-E1-F2

 <400> 10789

 aagttaccga attcccaaac aatgagtcac actgaagata aactaacaat aatgaatgaa 60

aatgacagtg gtgctgaggg agtcctggat tanggggtgt tgggtagcc ggactatacc 120
 ttcagccgga ctcttgact atgaagatac aagattaaag acttcgtccc gtgtccggat 180
 gggactttcc ttggcgagga aggcaagctt ggcgatgtgg atattcaaga tctcctacca 240
 ttgtaaccga ctctatgtaa ccctaaccct acccggtgtc tatataaacc ggagggtaat 300
 aatccgtacg caatcaactc catatacaac aatcatacca taaggctagc ttctaagggt 360
 taacctcctt gatctcgtgg taaatctacc cttgtactac ccatatcaac aata 414

<210> 10790

<211> 412

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-F3

<400> 10790

ctagagtgag tgcaattaca ctagagctat tcgagaatgt cgtgacggtc gctgaagcac 60
 aaaaaagttc acctagatct tcacgctcgc agaaaagtga cgatcccgga tctctgctg 120
 gacaatgagc taggattcgc caaagatcgt acgattagca ggttgacaga gctcaacagc 180
 agagagtact tggaggactt tgaagcagaa tggcaacatc ccctgcatgc tgtagataat 240
 ggcggcgatg tcgtacttgc ataagtggca gggcttcacg tgcaaggacc gcattatagt 300
 tttgttatat ctattatccc gcctggctta tggaggaatg ggagaaatgt tggttttcct 360
 gtcagtgatg catgtaattt cagtgtgccca tgatgcaagc acttttgcac gt 412

<210> 10791

<211> 265

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-F5

<400> 10791

acccaagaga taatcgtaat aggaactttt gccaacattc gcattgtgaa caagttcttg 60
 aacggatagg ttggcccaa aaccgtccat gttccatcag gggagaagct tgctgttttt 120
 gatgctgcta ctgaaataga tgaatgaagg gcatgacact atcatcctgg ctgggtgctga 180
 ttatggcagt agaagctcaa tggattgggc tgcaaagggt ctaaattcgt caaggagtga 240

acagcttgat cgcccagtag ttttg 265

<210> 10792
<211> 423
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-F6

<400> 10792

caaccctaaa attagtctta ataacctcag tgttgccaag atcaaccgc aggcaccct 60
tgataaagtc tgccgtgctcg gctgtggtgt ttctactggc cttggagcag tatggaatac 120
tgcaaagggtt gaagcaagtt ccattgttgc tgtttttggg cttggcacag ttggacttgc 180
agttgctgat ggggcaaaat cagctggtgc ttctcggatt attggcattg acattgatac 240
caagaagttt gatgttgcta agaactttgg cgtcacagaa tttgtgaacc caaaagacca 300
tgacaaagca atccaacaag tccttgttga ccttacagat ggtggtgtgg attacagttt 360
tgagtgcacg ggaaatgttt ctatcatgag ggctgcactt gaatgctgcc acaatggctg 420
ggg 423

<210> 10793
<211> 437
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-F7

<400> 10793

actcgcgggc cgacgtccat cactacgatg tcctaccatc acatcgaaag acgggacacc 60
tttgccctcta tcaagtggta tcagagttcc aggttgcctg gtgatatttt acagtttttc 120
gtagttaga tcgagtcttt ttttcatacc tatagtccac gaaaaagcca caaaaaaat 180
tagggtagt tcatcatatc cgaaccagtc tgagccattg cataatcttt tctgtatttg 240
cgttgttgaa tttgcagttg catcgctgtg tctagttggt ggtcttagtg tctagtcctt 300
tagagtttca agttctgttc acaagttgtc atgccgccgc cgcacatca tcatcaccgc 360
tgccatatac caccatcgtc atcaccgctg ccataacca ccattgacat caccgcaacc 420
atataccaca tatccac 437

<210> 10794
 <211> 94
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-F8
 <400> 10794
 atgagtcata ttatccatgt cgggtggccg tctgtctggg tcaagatgc caccatttg 60
 gcaacgggag gtccgttcat ctggccctc gttg 94

<210> 10795
 <211> 370
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-G1
 <400> 10795
 actcgcggat cgacgatagt occaagcatg catttaatga agataccct gatctacagt 60
 caactgcaac ctgcgtgcc aagcggcgaa aaattgaggt atgttaagat tatctgttga 120
 gaaatgaaga gaagattatt ctaaccagta gttagacttc aagtagtggc tttttattta 180
 tttatgtatc ctctccatag aatggaatgt aatagttctg ttggctcaa tggtgttaat 240
 tgttggctac cttgcattta cgctggcatt tgattcatct ttgtgcaggt aaatcatgct 300
 ctcttgagg agatcgagga gataaaccaa gggctcatag acacgggcct ccgtgtatgc 360
 aaggatgatg 370

<210> 10796
 <211> 428
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-G11
 <400> 10796
 ctgcggggc aacacaccac actaaagggg gacgcattaa gaaggatggc gatgatgaga 60
 aggaagaagg taagaaggac aaagaagtga aggagaagaa gaaagataag accggcaagg 120
 aagaaactaa gaagaaaaag aaggatgggg aggaagaagg tatgaagaaa gacaaagaga 180

agaagaaaga caagggcggc aaggagaaga ccaacgatcc ggcaaagctt aagaagaagc 240
 tggagaagat cgacgcgaag ttacaagacc tacatgctga aaaggaagac atcctaaggc 300
 agctgaagga gctcgaagag ggaatgacca ctgaagagaa gaagcctgta cagatagtgg 360
 aagcgagtgg caaaggcaaa gtccaaggaa gatgatcctg ttactggcac ctgatcttct 420
 ggaaatcc 428

<210> 10797
 <211> 435
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-G12
 <400> 10797

cgtcgcgggc caggtgcatt cacattataa ttcgagcccc ccctaccggc ctaccgctca 60
 tgtacagcca ctacgtacgt accatcgaca tgagactgac atcatcagcg cgcattgttct 120
 aaatggtcag cacgaatatg ccattgtata actgtttctat gggttcttggc ctagaaaagt 180
 ggtgctgcta tcattggcgt cgcccagaag tggcaagcac ggtgccttca tgatcattac 240
 ttgcacattc tggccagcgt cagcaactgg attgtcacca tcatcgctgt tattgtcaca 300
 acctccttat ttccccacct ctccatcctc ataatcctcc ttcatttcct cgtcgtcacc 360
 atcagcttct ttgagtcggt gtagagttac ctgccatggg aaccatcggc gcaggatggt 420
 ccaaagcaac tgaca 435

<210> 10798
 <211> 227
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-G2
 <400> 10798

gacgcggtgc ccgagctcgg ctaactccat gggaacaccc gacatatcat aaggcttcca 60
 tgccaagatg tcctagtctc cacggaggaa ctggacgagc tcaccttctt atttgctatc 120
 aaggggtgtg gagatgttgg tcggggaagc atttgggtcc acaggatgaa tgtgtactag 180
 cttcatctct cctgccgact ggaaagcgga ttccacagtc ggctttt 227

<210> 10799
 <211> 360
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-022-Q1-E1-G3

 <400> 10799

ggatgggaga cgtagacatc actctggctg acgctggcgc tgactgaacg ggtctcctcc 60
 cagatgggat gataatgctt gttgatcacc aacggtgaaa gggagtgaat gtttggcacc 120
 tcctgggtctt tggatgacgc atttatggat ggatggacac actgtttaaa ccgttattgt 180
 atattgatga tcacttgtag gcgatcagtc atcttacaca tcgaattacc tttcgtgag 240
 caatgattct gaatactgtt aaatactctt atgctacctg ttttcatcaa catttataca 300
 tggattttgc tctaactcct ccagaaatth atgggggaact cacaggacgc gctacatgat 360

<210> 10800
 <211> 148
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-022-Q1-E1-G4

 <400> 10800

atttatccaa catttctctt ctcaaaaagc cagaggccac aaaagagact gctaaggcac 60
 ttgactcgac cgtagttgcc gctggagagg ataccaatga acgtgaggaa ggactacagc 120
 catctgaaga aagtttacct caacaaat 148

<210> 10801
 <211> 125
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-022-Q1-E1-G5

 <400> 10801

tacggcttag cattcccgtt tcgacaaagc tagtcagtgt tctgtggcag agacctgctg 60
 cttagttatt attatgtcgt gccctatcgt tatctgagac tgggttgtgg tggttactgt 120
 tttgg 125

<210> 10802
 <211> 165
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-022-Q1-E1-G6

 <400> 10802

 actcgcgggc tgacgagact accaacaata agtcgtagaa ttgtccatca cgatgcgggg 60
 caaagtgggtt tgccccaaga aggtatattc atctgcgatt atccgacatg atgcgagaca 120
 nagtgatttg ccaccttgaa aggcttaata agaaaagcct tacct 165

<210> 10803
 <211> 392
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-022-Q1-E1-H1

 <400> 10803

 aaactgagtc gtaatatcac tttgggtggg atatatgggc ctggaagaag tgctttggac 60
 accatagcta agagaaaatc ttcttcgcga agacagaagt tgagggagtc caaacagtac 120
 acggcacgta tccatgtggc cgacatctat caggctatcc tggctagcat gagcatcaaa 180
 tctacaagga agatatacaa tgtggtggat gatgaccctg ccccgagatc cgaggtcttt 240
 gcatttgctc agagcttgat agagaaaaga accctgatct tgcagcggat tctgcaggac 300
 caaacagcca gaacaagaat tatagctgct gaaaaacggg tatctaattg tccgttgaaa 360
 ctggagctgg gcgttaggct ttcccaccca tc 392

<210> 10804
 <211> 412
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-022-Q1-E1-H3

 <400> 10804

 acgcaactcc ctatattgag tcggatgaca taaagccaga ggcggtggag catgatggta 60
 cagaagccga tccaagtaaa gaagcatcta tacctcctca agaggaaacc actgctgtag 120

ccttggttac aggaccggaa caaaatgaag aagcagatgc acctactcaa gtcaaaccag 180
 ttgctgttat acctggtacg ggaccagaag agaagaaagt agaggcatcc acccaagagg 240
 ataatgctga agcagttgcc gcagagccag aatctgctag agcccaggaa aatgcggaag 300
 cttctactca gcctagtcct atggagatag agtcggttca ggaaacagct atgctgggag 360
 aagctgaaac caggcagcaa ctgccacttc cgtctgccga ggggtgtggtg gc 412

<210> 10805
 <211> 409
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-H4

<400> 10805

acaccagtcc ccatatTTTT caatacaaca ctgctgtggc tgctatcatt gagaaggctcc 60
 tgagtgcgag gaatcctgag atcccatcc gcaaactgag ggtcaggctc tgtttgaggc 120
 ctgatgaatg tctctccatc agccaagtcg tcgcccttgc catggtaacc caaaagctcg 180
 atgttgctga gtttgtggtc ctcacggaga cgatttgttt gaaatgcact gaagaccatc 240
 tcctctgtta tgccaagcgc ttcaatagtt ggcttgggtga ttgtcctgcc atgtttgctg 300
 gtctcacacg cctgtggctg cgcaatatga tgtttgggtga actggacatc cccaacatcc 360
 tcagcgcctg taagagggtg ggatcactgc gtctctccta ttgtgacgc 409

<210> 10806
 <211> 399
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-H5

<400> 10806

tagaccctac agtgacgtcg tagtatcccc atcaaggcgg aacaggattc ggatggctcg 60
 gccagagca cagctgatat gactgctttt gtgcaaaatc ttctagttca gatgcaaacc 120
 aggttccaaa ctatgtcaga gaacatcatt acaaagatag atgaaatggg tgcaagaatc 180
 gatgaattgg agctgagcat caatgacctc aaggctgaaa tgggcagcga tggatatgacc 240
 cctactaaag tgaaggacga agaatcaaag ccagcagaca gctctgcctg atttaagcag 300

aagtagcaga agcaagtcgt attagtcttg gttccatgtc aatatcatca gccattcatc 360
actaacttaa tgcattgtcat gagatgttag tcgcactgc 399

<210> 10807
<211> 439
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-H7

<400> 10807

cgcggtcga caggatgcga taacgagagt cgggggagag agaacgagag aggtggccat 60
gggaggagga atggatgcgt tttggggaac tcgagtgatg gaattagtga agaagcacga 120
ttccggtggt cttcttttga agcggatcaa gctaaccctt actcgtaaag ccaatgccaa 180
aacccccctc cgtcgtgttt ggcagaatga ggctgttcta agggcgtgtg gtgaatcaga 240
tgcaccaaat ccgccgggag ctagcaacac aaaaagctct agcaatgcgg tgaaaaatgc 300
gtaaggccga agagaagcta gtcctagttt gtaaggactc gtagattaag tctctgtcgt 360
tacctgattt tacaaaaata atatttgaac cttgtgtttg gttaatagtt ttgccaaaga 420
agaggcacct ccacaccaa 439

<210> 10808
<211> 374
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-A3

<400> 10808

gagcacaaca tatgttgagc tgaccgaggt taccttaaac tggatcaacc acctaaaatg 60
aggcccctga ggatcgtcgt ctaagcccat agcatctgga aacgcaacta gaaaacgggc 120
ctggatcatt gctagccagt cagattatgc ctctaaagga cctatggcag taccggccaa 180
agcaccacag caagtaagac acatcatgta gactacgagc catctctccc caaggaaagt 240
gaaacctgcg tgtcctcgat ctccatctat ctgctaagca ggtaaggagt gacctgtcct 300
aagagaaacg tttcacttgc ctcatgcaaa actgcatcgg ttcaccttcc tcaccttgt 360
cccgtgttgc aact 374

<210> 10809
 <211> 407
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-023-Q1-E1-B1

 <400> 10809

ggtcgacgca attccctgta gtcactcgta tgactgtttc tctgagattc taccgtgtgg 60
 tgcgtgtgcc ccctctcgga agtcccagcc gtacgacaag cacagggctc cgcggcctcg 120
 caagggactc ttcagctgct gtttctgcaa gatcaggccg gactgcagaa cgaaagctga 180
 cgctgtgtac aggtctgaaa cccacgaggt gttccatggg tagcgagcat gttgtagctt 240
 aagttaggag agatgagcac cgttgaaaca aggctgataa tgttctatca ttttggtagc 300
 gatgtgggtg gccaaattcc attggaagtt agatcaattt acgccagtct ttgaactgca 360
 gcctgtcctt gagtctcgac tctagatgtg catcctagat gtcagag 407

<210> 10810
 <211> 415
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-023-Q1-E1-B11

 <400> 10810

tggctgacga gcctgcagat tctgattgct tgaaacactt tgatgttctg cagtgccttc 60
 cggaccatca ctaccttgaa aacatagcac atggtaccgg tggaagaaag tgggtcaaaa 120
 aagttcagca agaattggggc atacttgaga agaattctacc agattatatt tatgtcaggg 180
 tatttgagga tcgtatggat ctcatgagag ctgtgattat tggagcaagt ggcacacat 240
 accaagatgg tctgttcttc tttgacttct acctccacc tgagtttcca caagctcctc 300
 cgtcggcata ctatcattct ggcggcttgc gtgtaaattc aaacctttat gtggatggga 360
 aggtttgttt aagcctctta aatacttgga ctggcagang gaatgaagta tggga 415

<210> 10811
 <211> 422
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B3

<400> 10811

```
cgggtcgaca ctatctgaca acccacatca atgcttcaaa gcgagagaga ttgagcaggg   60
tggtgtacga gttcatgagt aaggacagag gttcccaatt cgagtgcgag tgcgggcatt  120
ttgaacacac aggcattgcta tgttgtcatg tgaaagggag gacagtggcg tgtacattgt  180
gcactacggc cgcgagttca ctgagttgtg cctccgggtca ccgctgagca gggtaagatg  240
caagaacagc agcctggaaa cctggaagat gcaagaacag cagccttgaa ggtcactgcc  300
ggtacacctg caccacacca ggctcctgg agggcctctg ttctgaagtg catttgtgta  360
gtgtggcgat ttgatttgac gattttccag tgtgttcggt gagctctgct ccacccttgt  420
tc                                                                    422
```

<210> 10812

<211> 369

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B4

<400> 10812

```
gcgggtcgac gttcatctct aaactgagtc ggaataacaa catacatacc atcaaaatat   60
cagacacata tcaaattcac aggaaccgga tgaagaccag ttatcatcgcg atgatgctca  120
tcgtgatgac cgcagctctc ctctatgtga tggtagttta gatgatcgat atcgacctgt  180
aatgtgaaga caaactcgct actcgcggtc tcgagacttg taatgttcta actttgttcg  240
gtattttgaa ttccgagact aatatgatga attgtattag gagactaatc gtccattgta  300
ttcgataaat ctgttggtta catgttgtgc tatctatatt ctgcgtagta atgtattttt  360
taccctgtg                                                                    369
```

<210> 10813

<211> 412

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B6

<400> 10813

ctcgcggggtc gacatggcac gcaagtctga gtcgtatcaa aatgcgtctg cactaaaaaa 60
agattgctcc ttatatgatg cgggcaaaca caggattgca tggatgatgtt gccctgggcg 120
ccgaccaaga aaagagcaaa acattggctc tgtacaaaac agtttcgtac atgcacgact 180
catgttcggt gaaatgtgtg tgtgagctag actagtacaa tacttcttgt acgtgcactt 240
gtgtatgatt ggagtgttat gtagtttatt ttgcaccgta ccctttcttt acatttttga 300
gaattgtccc ctttctttcc tcatatatag tctccagctc caaccaaatt taatttcata 360
gaagttcaaa gatgaccagc atagaaggct atagaaaaaa aacatttttt ta 412

<210> 10814

<211> 417

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C10

<400> 10814

gcgtgtagtg cttgggtttt gatgacttgt agatttttgc aataagtatg tgtgttcttt 60
atgactaatg ttgagtccat ggattatacg cactctcacc ttcccatcat tgctatcctc 120
ttcgggtaccg tgcattgccc tttctcacat tgagagttgg tgaaaacttc gccggtgcat 180
ccaaaccccg tgatatgata cactctttca cacataaacc tccttatatc ttcctcaaaa 240
cagccaccat acctacctat tatggcattt ccatagccat tccgagatat attgccatgc 300
aactttccac catctcgttt atcatgacac attcatcatt gtcattattgc ttagcatgat 360
catgtagttg acatagtatt tgtggcaaag ccaccgttca caattctttc atacatg 417

<210> 10815

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C3

<400> 10815

gggtcgacac gaaagcgaaa acttagacgg gtgaccttgg gtaagggtact tagatcaggt 60
tcgtgaccct accctaggta catgacccca tcagcatgcg cgtagtacct gatttttgac 120

gacgtctaaa tttttgcaat aagtatatga gttcttttga ctaatgttga gtccacggat 180
tatacgcaact tttaaccttc cgcctttgct agcctctaca gtaccgtgca gtgccctttc 240
acagcttgag agttgggtgca aacttcgccc gtgcatccaa aaccctgat acgatacgct 300
ctatcacaca aaaacctccg tatactctcc tcaaaacagc catcatacct acctattatg 360
gcatttccat ggccattccg agatatattg ccatgcaact ttccaccatt c 411

<210> 10816
<211> 278
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C5

<400> 10816

tccggcatgc cattaaaatc gcatactccc gttctgcaca tccctgctct tctgagggc 60
accgtcgtgg tctcaacata gcaagaagag cggcacggct ggatccgcga aagagatggc 120
attttcctct gagcacactc acccttgaca ttctcccatt gaaagatctg cggtttacgt 180
cagctctggc ccattgagg gtgtgcgcta attttctctg gcaaaggctg tagcttccag 240
agtgcataatg ccaaagcctg agacttgaga gtgttatt 278

<210> 10817
<211> 370
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C6

<400> 10817

actcgtgggt cgacatcact acccacagtc aggcttaaga gggagattgt gggctccacc 60
ctgtctccgg atggacttgc atatttgctt agctaaagaa gtaaaaggca ggtgagcggc 120
ctcgtggcgg acatttgcaa ataacatttt cgttttagtga aacttaaaac acaagtgagt 180
cagggaaaaca agtttatttt attgcaccac agaaaatata atttttacaa aagttttgag 240
tgggtactaa attttgtaac agatgcagta caaataaatt cctagttttt ttatcatata 300
ggacaaatta gtaattacta ggagaagagt acaattcaaa gaaggcagag tcaatcagta 360
gctcgtttcc 370

<210> 10818
 <211> 434
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-D2

<400> 10818

```

gggtcgactc cacaaaataa atagagacca actcatcgaa agatcgggac accctcgctt   60
ctatcaagtg gtatcagatt tccaggttgc tcggtgagat ttacagttt ttcgtacttt  120
agatcgagtc tgttcttcat acctacagtc cagcaaaaag cgcacaaaaa aaattagggt  180
tagttcatca tatccgaacc aatctgagcc ttgcataat ctttttaggg tttttgcttt  240
gttgaatttg cggttgcacg gtcgtgtcaa gttgctggtc ttagagtcta gtcttttaga  300
gtttcgagtt ctggtcataa gttgtcacgc cgccgcgcga ccatcagcat cgccttgcca  360
tctaccacca ttgcttatcc gtcaccgcct tgaatccgta accatatacc aacaacgctg  420
tcatatagca ccac                                                    434
  
```

<210> 10819
 <211> 410
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-D6

<400> 10819

```

gaatgcccgt gcgttgctac ggcctacaat ggatagagaa attagactac aatgattaag   60
gtcatctctt aggtcaaagc atatttctcc ttcatatgtc catgcgtggt cggacattaa  120
acaggctccc aaaattcaac tgtttgata gtttggtctt tcaaattccag accatacgtg  180
gaggagaaaa atggtcttcc ggactatctg ccatgtcacg taggtccaac aaaaaaac  240
acccacagat gtagccttcc cttttcctgt tggatcccc cttcccttt cggtttccat  300
catagcggaa catttcacgt tggagccctc tcctttaaaa ctggatgaca cccatctcac  360
attcgccgtg cgcctctcgc tcctttacac tgtactttcc catgggacgc            410
  
```

<210> 10820
 <211> 298
 <212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-023-Q1-E1-E2

<400> 10820

tgaagataac gttacgcaat gtgttgactc aagacttgga ggggactatc ctcctaaggc 60

tggtgcaaag tttgcagccg tcgcggcatt gtgcgtccaa tacgaagccg acttctggcc 120

aaacatgagc atcgctgtca aggcgtctta gcccctgctg aatgcgcgag cagcccaccc 180

tggggctgag catgccggac gctaaactcc actccttgta tgatataata gataaggaaa 240

aatgagccat caattgttgt tcttgcgggg cgcgtggcaa gcggtttttg tacatttg 298

<210> 10821

<211> 416

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-023-Q1-E1-E3

<400> 10821

gggtcgacac tatttgttca attgaatatt gtggcgaatt tgctttttgc gtgccgattc 60

aaaatgggat atttttgttt taacctggca attgctccgc acacggttca actaaatgag 120

tgtgtgtgat ccacatcgga aagcatatgt caatcctatt ggaaccgtcg gtgatacaca 180

gtagatcgca aacgattccc agcgtatta tgtgtgcgta ggttctccgg aaccgtttgt 240

gatatcgtgt tatcgcacac gagaactggg agtaaaccgt ggccaatgca aaatacaatc 300

ccagtcgtat ttattgtagg aaacgtgtgg gtcccaaact aaaagcacac gtcactcttg 360

cggcaaccgt cggtgatacc taacaaatca caaacggtct gcagcacttg tatgtg 416

<210> 10822

<211> 400

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-023-Q1-E1-F4

<400> 10822

gccccaaacc ccagacgaaa ccctagcctg cctcccagga gcgccgagtc cctccgcccc 60

caacagatct acgcgcgcga ggttcggttc ggtcttcgga gctcgagaca tggcggagga 120

gaatgccccca gttgagggtg ccgctccggt tgcggccccct accccagttc ttggagagcc 180
catggacttg atgactgctc tgcagcttgt gatgaagaag tcaagcgctc atgacggcct 240
tgtcaagggga cttcgtgaag ctgcgaaagc gattgagaag catgctgctc agatctgtgt 300
gcttgctgag gactgcgacc agcctgatta cgtgaagctg gtgaaggcac tgtgtgctga 360
gcacaacggt cacttgggtca ctgtgcctag tgccaaaact 400

<210> 10823
<211> 233
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-G1

<400> 10823

gggtccagcg cggagcttga aaggtagtcg aagaacggat gcagattgtc gtctgcatcg 60
atgacatctg aaagacggaa tgtgtgctac gttcacggct gagtggatgg caagtgtgga 120
ttcctccctc ggagtcttag tcgtgggtggg gtggcagatc ttgagttcga tggcgtgtcc 180
ggggtggtgc ccccgattcg agtcgttcag agacagtgac ctcacctttg gga 233

<210> 10824
<211> 240
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H1

<400> 10824

cgggtccagg ctatcctcca aacggagtcg tacaacaccg accaccccct attgcaattg 60
caatgacaga gctgaaaaag acgaggcgaa cggcggcagc gtggtgtttc tgccacatga 120
ttttcattgc aaactttctg caacatcacg tgtgttcag aaattccttc cgcaacaact 180
cctgtgttgc acaaaaagtg aagataaaga agtccgcagc atctttgtgg caaaaattct 240

<210> 10825
<211> 360
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H12

<400> 10825

acagtacacc ctaaaatgag tcgtcatact tcaagcataa catccacgac gagtggcttg 60
cccggcacct gggacaggaa aagccgaaat ctatggcagc cctcacaaca ctcatgacac 120
gcttttgcac ggaagaagac agctggctag ctgcagtaa caacttacca gagaaccttg 180
gtaattcgga taccaatgac aaaagtggca cgacacgccg gaataagcaa aaacgccgca 240
tttacagcga cagcaatgaa gacacggcag tcaatgccgg attcaaaggc taaaaatccg 300
gtcagcggaa aaagcattca caaagaatac ttatggcctg tcgagtttgg accgaatact 360

<210> 10826

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H3

<400> 10826

gggtccaccc tccgcatgaa ggttggaagc aaatgcaagt tcataccaaa agatcgtaa 60
caacaacacc aacttgcgga tgacaaggta gtacaactac caataccaaa caaacttata 120
atctttttac tcttggccct agtggttcgtc tggtagaaaa tcttgagag gaccaactcc 180
cactccttct cttgtccag gtccccgagg tggtagtggg gcataccca gttggtcctc 240
tactggtcga agttcttgtt ggtgtgtgc accagaacct tttttgctgc ccgttagccg 300
gccgttgacc atcacggca aggtattgcc ggtcttgtgc cacatcgctg gcataccgca 360
ctacgacggt atcttgcaac aagtccacgt gccccttt 398

<210> 10827

<211> 419

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H4

<400> 10827

tcataggaag ggcataaca ctgtcaattg cagaggcttg gacctgcttc ggcatacagt 60
agagcaaaca agaaggtaa gccggaaaca aatatttcat cctcggtcgg acttctcatc 120
tcgcaatgga agccaagttc tttcggttcc tgaagcttgt tggagttggc ttcaaagcca 180

ggacagagcg cgaaggccgc gagttgtttc tgaaactggg ctacagccat gaggtgcagt 240
tcaccgctcc acctgccgtc cgcgtcttct gtttcaagcc caacataata tgctgtactg 300
gcattgacaa gcatagagt caccatttctg ctggagctgt ccgatgcagt aaacctccag 360
aagtgtacaa ggggaagggc atactgtaca tcgacgaggt cataaagctg aaacccggg 419

<210> 10828
<211> 404
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-024-Q1-E1-A2
<400> 10828

cgggtcgaca cttctccaca tacacaagca taccacacaa cctccaaagg ctgctactga 60
gctcaatgtc cactgccaat ttgccatgtt gtcagatagc tttggaaaag tgtttgtcaa 120
atcttaagta tctcagaggt ttgcacaagc attgctgctg cttgggtccat accattatct 180
cacattcttc actgctgtta accactatca tgcctgagc ctgccaacac tattgcttgc 240
ctcctatcag aggaggtttc tacgggcaaa atgtataatg tgaagaaggc tatcaggagc 300
atacgaaga cgaactgacat cattatgaaa gcgtccggcg ctgcataatg gaagatgctc 360
agtctttttg tcatccatcg tcgattgaca cgcctctgtg gatt 404

<210> 10829
<211> 454
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-024-Q1-E1-A3
<400> 10829

gggtcgacac agccgtagcc gtcttggcaa accttgccac aataccagaa gggaggaccg 60
caatcgggca ggcccggtgt atcccagccc tcgtcgaagt cggttgagctg gggtcggcac 120
gggggaaaga aaatgctgcc gcggcggttc ttgagctatg cacaacagc aataggttct 180
gcagcatagt tctccaagag ggcgccgtgc ctctctagt cgcgctgtca cagtcgggaa 240
cacctcgggc aagagaaaag gcgcaagctc ttctcagcta tttccgcagc caaagacatg 300
gcaactcggc gaggagatga tgatatgatg ttagcatcat aattttgtag tgtacatgaa 360

gcatttcccg cgaatggcag ttaaatttgt tgactggctg gtgctgtgca ctgtttgttt 420
atagtcagat tgagagagat tgtgctcatc atcc 454

<210> 10830
<211> 435
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-A4

<400> 10830

cggggccacc cgcttttttt aattattttt tttttttttt tttgaacaat atggcatgcg 60
ttctgcttct tatacattat gatctgaaac agatcaacca actcaccttg tgccaaacgc 120
ccagacataa caaaatttcc atgcgctgcc atggatgctc attcgacagg cgagccagac 180
ctttggttac agtacaagaa ttgttgctc tagacaagca tctgctggta aggcagggga 240
aaaactgaag agtcagccag gcttacgtgc aaggcgacat caatcaagat aaatagctag 300
aggagaaaaa aaaatgcagc agaggtcatc agtgatactc tgccaaaaaa aaatgggttg 360
gcttagcatt gccgaaccaa ctgtgcatct caggagatgc ctgccatgcc actgaacaca 420
tcatggtcaa tgtgg 435

<210> 10831
<211> 400
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-A5

<400> 10831

gtccacctct gtaaataaag ggacgacctg acggtgattc agggcatgta agatcagacc 60
gagagccagg tcaaacgatt tcgctccctg gtaatcgaga cataagcaat cccactcaa 120
actggatcgt aggccttttac cttcacctta aggggccgac cagtataaat cccgtgtcct 180
ttgtcccgat taaccctttt aagtttcta attgcgatgg ctccctcact aagtccttcc 240
actaggacat ctaacgtgac aattccatga caccatcct cctcctcctt ccacaaccg 300
cacacccga ccgctggtgc aacacttcca cacaatcac cgacccttcc accacataag 360
cgctcccta aacctatggt ggacacagta tagacaggat 400

<210> 10832
 <211> 429
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-A7

<400> 10832

gggccacgaa cctactcaaa atgaagatgt tgagccggct gccataaagc cagaggcagt 60
 ggagcatgct ggtacagaag ctgatccaag taaagaagca tctatacctc cacaagagga 120
 aaccgctgct gtagccttgg ttacaggacc ggaacaaaat gaagaagcag atgcacctac 180
 tcaagtcgaa cccgttgcca tagtgccaga ttccatggag catgctagta cccaagttga 240
 tcaaagtata gaaacagctg tgcgtctccc agacgaaact tctgttatac ctggtacgga 300
 accagaagag aagaaagtag aggcattccc ccaagaggat aatggtggag cagttgccgc 360
 agagccagaa cctgctggaa cccatgaaaa tgcagaagtt tctactcagc ctagtcctat 420
 ggagataga 429

<210> 10833
 <211> 475
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-A8

<400> 10833

gtaccggacg tacattcccc ggtccacatg gccaactggg ttgctgccat ggtcatggac 60
 aaggcgtatg acggttttga gaaggcatac tctttcaatg caacagcaga gggcaataac 120
 accatcttta tgcagggcct tgaggggctc aattaccttg tgaagcagac caacatgagc 180
 gggtcggatt acctcgtgcc gggaaagcag caatcagtgc tctcattcac caagaagctg 240
 actcctgata tcgatgttgt cgctggagat gggttcccaa caaaggtctt cttcaatggc 300
 gacgaatgtg ctatgccgca gaggttacca atcaagagtg gtggattcag gacccatcta 360
 agcagtgcct ttgctttggg attgctcatg gctgcctcgg ccttgctgtt gcttcagcaa 420
 taatcttgtt gctgttgctc cgattctttg attccttcag gtggttccat cagcg 475

<210> 10834

<211> 419
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-024-Q1-E1-B1

 <400> 10834

 cgggtccacg cggcgtgtcg aacccaaatt cttggctgcc gctgaggag gggggcgcgg 60
 cgagaatttc ggccaggcca ctataccaca ccaaggtaac tggtttttga aaagtttgtg 120
 ttttaaattt ttttgtttag aatttttagaa aaatgtccat gttcacaaat tttgttcata 180
 aattaaaaaa tattcaggaa tttcagaaac cgtcatgtt ttaaaaaaat tgtttgcatt 240
 ttcgataaat gtttgaaaaa ttcaacaaaa atgtttgtat ttttagaaat ttgtaaacad 300
 tcaaaaaaaa tgttcatatt ttaaaattgt ggtcaaaact tgttcagaag ttgaaaaatg 360
 ttcccggtttt accttttggc cacaactaa aaaatgttcc gtatttttca ttttttttt 419

<210> 10835
 <211> 472
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-024-Q1-E1-B2

 <400> 10835

 ggtccgaata tccgggtcga ccagattgtc attctgggca ccgtatttcg acacaatatg 60
 tacgcctttg agaagttcat gggagtccta aagaaatatg tccgtaagcg cgctaggcca 120
 gaaggaagca tctccatggg ccatcagaca gaggatgtca tcggggtttg tgttgacttc 180
 attcctggcc ataagaagat agatctcccg aaatcgcggt atgaggggag actgactgga 240
 aaaggcacgc ttggaaggga ctcaataata tgtacggacg gatattcttg gtctcaagca 300
 tgctacacgg ttctacagaa ctcgaccatg gtgaccccgat atgtccgtga acagaagaac 360
 agtctgcgct ccatacaccg ggagcaatgc gacgactgga ttacatgtga acacatcagg 420
 actttcagca gttgggttga aacacgtctc agacgtgaca acactgtttg tg 472

<210> 10836
 <211> 421
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-024-Q1-E1-B3

 <400> 10836

 ggggtccagcc gctttttttt attatttttt tttttttttt ttgaacaata tggcatgctt 60
 tctgcttctt atacattatg atctgaaaca gatcaaccaa ctctccttgt gccaaacgcc 120
 caaacataac aaaatttcca tgcgctgcc tggatgctca ttcgacaggc gagccagacc 180
 tttggttaca gtacaagaat tgttgctct aaacaagcat ctgctggtag ggcaggggaa 240
 aaactgaaga gtcagccagg cttacgtgca aggcgacatc aatcaaaata aatagctaga 300
 ggagaaaaaa aaatgcagca gaggtcatca gtgatactct gccaaaaaa aatgggttgg 360
 tttagcattg ccgaaccaac tgtgcatctc aagagatgcc ctgcatgnnc atgaacacat 420
 c 421

<210> 10837
 <211> 448
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-024-Q1-E1-B4

 <400> 10837

cgggtccact tccaccaaag cgatatccat catctcatcg aaagacggga cacctttgcc 60
 tctatcaagt ggtatcagat ttccagggtg ctcggtgaga ttttacagtt tttcgtagtt 120
 tagatcgagt cggttcttca tacctacagt ccacgaaaaa gccacacaaa aaaaattagg 180
 gttagtcat catatccgaa ccaatctgag cctttgcata atcttttttag ggttttgctt 240
 tgttgaattt ggggttgcac cgtcgtgtct agttgctggt cttagagtct agtcttttag 300
 agtttcgagt tttggtcata agttgtcacg ccgccgccgc accatcatca tcaccctgc 360
 catctaccac caccgcttat ccgccaacgc ttcgaatccg tatccatata ccaccaccgc 420
 tgtcatatac tancaccgct ggcattca 448

<210> 10838
 <211> 432
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-B7

<400> 10838

attcgcggggt ccacattgag ccagaaatgc atgtcaagag ggcgatgaat gagatcaatg 60
cagcttctag gatgagggtcg gcagccaatg acaaagcaga ggccgaaaag attctccaga 120
ttaaacgagc agagggagaa gccgagtcaa agtacttggc tgggtgtgggc attgcaaggc 180
agcgtcaggc tatcgtggat ggtctgagag acagcgtcct tgccttctcg gagaacgtcc 240
ctggcactac tgcgaaagac atcatggaca tggttctggg caccagtat ttcgacacca 300
tgaaagagat tggggcctca tccaaatctt cttcgggtgtt catcccccat ggtcctggag 360
ccgtcaagga tgtcgcatcg cagattagag atgggctcct ccaggccaat actctctaag 420
tgagggtcat gg 432

<210> 10839

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-C1

<400> 10839

cgggtccact tcgccacaag acaatctgcc accacctccg ccgattttgc cggaagacca 60
tcagccgtca cctagacctt ctttggttca gaaaatagat gacaacactg taacttaata 120
ttacacagaa cattgaggag gactttgata accgaccttc aaaaaaaagc aaaaatttct 180
gaatcaagtg ttctggagcc atcacctatg tcaacatgta ctccagtttc tgagtgtttt 240
gaatcgattg tgccaaaatc agataattag atagatccgt gtcctattgc catcacctcc 300
atccccatct agctcgacat tatctcaaga acatcggtcg agccgtacaa atggcgctcg 360
cagcggctac accagaggta tttatccctt tgatgaaagc taatcactgc atgtaatccc 420
ctgttttagtt gttgttctgg cctgggtata c 451

<210> 10840

<211> 460

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-C2

<400> 10840

gggccgaata tccggggggc gccttttttt tttattattt tttttttttt ttgtatagtt 60
atcacgagaa gcatatgtca atttcattat ggactttggc aatgatacgt tgatgttttg 120
actacgacgc gatcctacat ggatcaggga gacacacgcg accaacaagt aatcaaagaa 180
aataatggcc cagagatagt ttctcgggac agcaacacaa tcttctgcat gcaagcagtg 240
gatactagca tgggcttcgg atcatcccat ggcatacttc tgcgtccagc tgcgggctgt 300
cgtctcgtag ttggaccgat ccgtcttgta catgtgggca atctcaggga cgagagggtc 360
gtccgggtta gggtcggtaa gcagtgcgca gattgaaagc agaaccttag agattgtcaa 420
agcatgaact cattgctcct tcagaatgac gaggcataatg 460

<210> 10841

<211> 415

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-024-Q1-E1-C3

<400> 10841

cgggtccaca cgctcttata cagagagctc ggcagcgaaa tgctccgaag aggatgagga 60
tgaaaacata ccattatctg aggatgcatt gtatgagatg aaagattggg gtagccctga 120
aggatgagcta caaggcatgg ttttggacat tgaaagatcc atcttccggg acctcattga 180
cgaggtcata ggttgcgagg ctacagagag gatgcaagct ggacaatgga aactgcgtaa 240
gcagctgtct ttcagtagta taaactgaat acgactggcg atagtcgttg tttccattan 300
gaggcttagc cactagtata aatgtaacct tttgtatttt tctgaaaact gaattatata 360
gaagaaatat aattattcct ggaaaaaaaa anaancatag aaattgtcaa agcaa 415

<210> 10842

<211> 450

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-024-Q1-E1-C4

<400> 10842

ggtccaaata tccgggtcca caacagcggg acgatcggtg ggatcaaagtg caaagatgga 60
 attgtccttg gtgtggagaa gctgataaca tcaaagatga tacttgctgg gtcgaaccgg 120
 agacttcatt cctgacacg gaactctggc ttggctgtgg ctgggttagc ggcagacggg 180
 aggcagatag tctcaagagc aaagtcagaa gcagccaact atgaaaagggt atacggagaa 240
 cccatgcctg taaaggaatt agctgatcgt gttgctagct atgttcactc gtgtacactc 300
 tactgggtggc tcaggccttt tggctgtgga gttattcttg gaggctatga tanggatggg 360
 ccacagctct acatgatcga accttcaggc ctctcctata aatattttgg tgctgctctg 420
 ggtaaaggaa gacaagctgc aaaaacggag 450

<210> 10843
 <211> 460
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-024-Q1-E1-C6
 <400> 10843

ttcccgggtc cacagaagta tattaaatat acattatatt aatgtgtact ttacaagtac 60
 tcctaataac accagggtat tagataccgg ttcggttgct aagtgttagt aagtcaaaat 120
 ataagctgtg gaataaacgg agactagcta aagggtgagat gacgatatgt gttggaagtg 180
 tttccaagggt tgatgtgatc aagcatcgca tgctccctct accatcgaga ttgggggttaa 240
 acctgtataa ttagtatttg gtgtatgcgt tgagcataga catgattgga ttatgtttat 300
 cgcaatatgg ttattcatta gaggagaata atggatactc tgtctatttg aataatacct 360
 tcaatggtct tgcaactaag atgaatggtt tattgaatct cgatcgtagt gatacacatg 420
 ttcatgcaaa aacatataga tagtaatgat actaccacat 460

<210> 10844
 <211> 371
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-024-Q1-E1-D1
 <400> 10844

cgggtccgaga atccggggcc acacgaatcg tcgaagtacc tggatctgga tttggccagg 60

ttcctggcac atggcacttc aggtgcacga tccttccgca ggaggagaag atccccggcaa 120
 tcatctcccg cttcacggtg ttccatgaga cgttcatggc agagtaccgt gactaaactg 180
 gtgtaacatg tgtgggatta catgcaagcc tcatggattt tccctaggcg tttttgcccg 240
 cgttgacagc agtatcctgt agatgagaca aaataaagca aatccatggc ttgtgtgtgt 300
 gatactatat cagattacca gtctgatgcc tttgatggca aattggcaac tgagaatttt 360
 tatttccacc t 371

<210> 10845

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-D2

<400> 10845

cgggtccaca ctgcaccata aaacaaagca tctctactct aacattgagt cctctcgtga 60
 ttcagtggaa caccattata agttcacaac accagaatga atcatgtcaa aaggaagcac 120
 catgcaagct cataatacaa tacaattaac atttaacacc ttgcaataaa tatttgttct 180
 gttgacagtc acaccatgct gataataaaa caacttttga tggacaaacc gcaagaggaa 240
 aaatatggtg tctttgcatt ttgtgccaag aagagacata agagaaaaaa aaggaagaac 300
 aaacagagca aaaaggagaa gacacaatta tgtggcagac aggtacagat acatctcaca 360
 tgttcttggc ttcttctttc ttatgtatat aacaagatga gacttgggac tgactgactg 420
 gaaaagagaa gatcacaac aaaatgactt cactga 456

<210> 10846

<211> 460

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-024-Q1-E1-D3

<400> 10846

gggtccaggc caagatcatg gagatcgct cgcttgagaa gttcctgcag gagcgcatca 60
 aggtcgccgg gggcaaggcc ggcaacctcg gggactccgt caccgtcgcc cgcgacaaga 120
 gcaaggtcac cgtcacctcc gacggggcct tctccaagag gtacttgaag tacttgacga 180

agaagtacct gaagaagcac aacgtgcgtg actggcttcg ggtgatttca tccaacaagg 240
accgcagcgt ctacgagctc cggctacttca acattgctga gaacgagggc gaggaggagg 300
actagatgtg cactgccttg tttctgtgcc gtgtgaaact ttgaacttgt tggagcactt 360
ctgcagtaga gttttgatgt ntatgtnttc acccctgttt tgaattgtgg ccaggacgcc 420
atgtgatgga tgcttagata accaagctga agaattgtcc 460

<210> 10847
<211> 433
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-024-Q1-E1-D4

<400> 10847

cgggtccact ccgaggaact cactgtggag gagcgcaacc tcctctctgt tgcatacaag 60
aatgtgattg gagcccgccg tgccctcatgg cgcacatct cctccattga acagaaggag 120
gagagccgtg gcaacgagga ccgggtcaca ctcatcaagg aataccgtgg caagatcgaa 180
actgagctta gcaagatctg tgatggcatc ctcaagctgc tcgaaacca ccttggtccc 240
tcttccactg cccctgagtc caaggtcttt tatcttaaga tgaaggggtga ctactacagg 300
tatcttgccg aattcaagag tgggcctgag atgaaggatg ctgctgagaa atacatgggtg 360
gcatacaagg ctgctcaaga tattgctttg gctganctgg ctccaactca tccgattang 420
cttgggctgg cac 433

<210> 10848
<211> 457
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-D6

<400> 10848

taccggacgt aaattccggg tccacttcca ccaaagcaat atccatcatc tcatcggaag 60
acgggacacc tttgcctcta tcaagtggta tcagatttcc aggttgctcg gtgagatttt 120
acagtttttc gtagtttaga tcgagtctgt tcttcatacc tacagtccac gagaaaagcc 180

acaaaaaaat tagggtagt tcatcatatc cgaaccaatc tgagcctttg cataatcggt 240
 ttaggggtttt gctttgttga atttgcggtt gcatcgctgt gtctacttgc tgggtcttaga 300
 gtctagtctt ttagagtttc gagttctggt cataagttgt cacgcccgcg ccggaccatc 360
 atcatcgctc ctgccatcta ccaccatcgc accgaatccg tatccatata gtagcaacaa 420
 tccgtgtcga tataaccacca ccgattcata tccatat 457

<210> 10849
 <211> 424
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-024-Q1-E1-E2
 <400> 10849

gcggtccac actattcacg aaagtgagtc ttatgacctt cttggggaca tctccttggc 60
 ctctcccagt acccctttta ccaacaatca gggtgaaaaa tcctcctccg tctcaagcgg 120
 acatggcgtg gagcactttt tgaatttgcg aacacttttt gaattcatgg acatattttc 180
 aattcacaaa catttgaatt tgcaaagatc ttttgaaatt cacaataatt ttctagattc 240
 acaaacaatt tttgagctca agaacatttt tttgaactcg tgaacatttt tataatctgc 300
 acctttttta atttgtaaac aattatagtt ttagctcaag aacattttta taatctgcac 360
 cattttaaat ttgtaaacaa atacatttgt tagctcaaga acattttttg aattcgtgaa 420
 catg 424

<210> 10850
 <211> 462
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-024-Q1-E1-E3
 <400> 10850

cggtccact gtcgggacgc taaagcctta gcggctttca gccataatgt ccgagacgaa 60
 tggctcgcca gacacctcgg ccaagaaaat ccaagaacaa tggccgcact aacaagactc 120
 atgacctgct tttgcgcagg agaagacagc tggttggcaa gatgcagcac cagtgaacca 180
 agtacatccg aagctagggg tggaaacgga aaaccacgat gcaataagga ccgtcaccgg 240

actaaagaaa aaaatccgaa gagcacggca gtcaacgccg gattcaaaaag ctcacgacat 300
aatcagaaaa agccgccttc caagataaca gggacggcct atccaaccta aacaaaatct 360
tggataggat atgtcaaata cacaacactc ctggaaagcc tgctaaccat acccacagag 420
attgttgggt tttcaaaca tccggcagac tcaacgccga ac 462

<210> 10851
<211> 426
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-E4

<400> 10851

ggtccaagat acccgggtcc acagttgtcc acttacacaa gcacaccac caacctcaa 60
aggctgctac tgagctcaat gtccattgcc aatttgccat gttgtcagat agcttttgaa 120
aggtgtttgt caaatcttaa gtatctcaga ggtttgcaca agcattgctg ctgcttggtc 180
catacatta gctcacattc ttcactgctg ttaaccaata tcttgcctg ggtctgcaa 240
gacgattgct tgcctcctag cggaggaggt ttctacgggc aaaatgaaga aggtgaagaa 300
ggctatcaag agcataggca agaagactga cgtcattagg aaggcgccg cggtgctta 360
atggaggatg ctcagtcttt ttgtcatcca tcttcgattg actcgctct gtggatttgg 420
tggcgt 462

<210> 10852
<211> 471
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-E7

<400> 10852

taccggacgt acattcccgg gtccacacga gaaaaaact tcaaagcaat aagaggcaat 60
ggatattgtt tcgtccctga agatgggacg ttccctaccg aaaaccatca tgctttttgt 120
gagaagctcc ggtttgtgag aagcatatac ccaaacctgc cccaaatggg acaaaaattt 180
taccacggca tgttgatgcc gctccatgat agcatgcaa gtttcatgaa tttcagaata 240
gttttgatt tactagaatt taaaaaccag gcattctaat gttatgccg caatcaacgg 300

tgctatgggtg ttgaaattc attcacattt cttgcatggg acataagcat gcacccaagg 360
acacagatta tattttttcaa ccaatttata tgcagtggcg catgcgcatg tagttcaaatt 420
ttgaattatt cacataaatg cattgaaaac tcagttaatg cataaaaatg t 471

<210> 10853
<211> 458
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-024-Q1-E1-F3
<400> 10853

cggtgccacc cataagtacc aagtgattcc atctccaata tgacgtcaat atctaaaatc 60
tctctacttg gggaaatcca tcaacggcgt ctactgtgca ctaatcttta attcagagga 120
acggctacgg atttggctac ttaatgatga tgaggtagcg ggtcaaacaa aatgggtgct 180
caagaatgac gtgagcattc aaccactcgt gggaataaca catcaacact ttggccttca 240
aaacaatgga ctttggactt tgcaaaacac ttcctacgaa ccaatggcgg agcagaaatt 300
tgaatgggat cctgacagcg acatcaccct tgaagctgag gctaaggctc caatagatca 360
ccttcatgat gatattcgta ccctaagatt tcctccttac aaggagattc tcttcttatg 420
gacaaattgc aaaagagtag tagcttacca tttgaaca 458

<210> 10854
<211> 449
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-024-Q1-E1-F4
<400> 10854

cggtgccacc cggtcgctcg atccaaggcc ggcacacgt ctgcaggcag caagaagatc 60
gtgggcgtgt tctaccaggc tggcgagtac gccgacaaga accccaactt cgtcggctgc 120
gttgagggcg ccctcgcat acgcgactgg ctcgagtcca aggggcatca ctacattgtc 180
accgacgaca aggagggtt gaacagcgag ctggagaagc acattgaaga catgcatgtt 240
ctgataacca cccattcca cccagcctat gttactgccg agaggatcaa gaacgcaaag 300
aacctcgagc tgcttctcac agctgggatt ggctcggacc atattgattt gccagctgct 360

gctgctgcaa gcatgacagt ggctgaggtt actggaagta acactgtctc tgtggcagaa 420
gatgagctca tgcgcatctt gattctgct 449

<210> 10855
<211> 459
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-024-Q1-E1-F5

<400> 10855

ctcgcgggtc cacacgtcac ggaaaaatcg ttctggagat cagcccaagc ccagcagaag 60
ccactcctaa ccatgttcgc tcgattgaca agagcagggc ggaagattgg atcgagggcg 120
cccgcattggc ctgcgcgcgc ctgtcacctg gattcgctag ccgcctcctt gagtcacacc 180
cgtcgccgcc gcgagtaagc tccaccgttg ctgccaggaa tctcgtcccc ggcaaggtaa 240
tttcctctga atccctgctc tccctaactc ccttatcttg ctgccctact tgctgcgtgt 300
gtgctgtgtg ctgtgtgctg ttagccatga tctccgcgag aaagctcaag tcnctcgact 360
tttacaggta ccatccgcct cccttcgat cttcagatct ccatatgtgg tgaatgtgg 420
gttttggttt ttcgtcggat tactatctgt attcgggga 459

<210> 10856
<211> 460
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-G1

<400> 10856

cgggtccacg ctgaacaaaa cagcggcggc gatggcgagg gcggatgtgt ggaagaagga 60
ccaggctcgc cgaaacaggc acccggaacta cgagttcttc ctgtcccggc agcaacggta 120
gatgactcga ggcttttgcg cgaaccatgt ttgagaacgc tgacggatgc ttgttcccct 180
gtaaccagaa ccaaccatgc cggctgagcg gcgccgtctg cctgtgttac caccctgtat 240
atatttgaga tagaggcaca tgtggaggtg ctgctcaatt gaaagtgaac ccagaccaga 300
gatgttggtt actaagtggg gttgatatca taggtgcaac cccttttaaa tctaattagc 360
ttgctcacc atgtgatgta catatatgcc tgtaactcaa ctcagcccag ccctgtatct 420

aactgttttag ctgcatatta taatatagat ctgattaaca

460

<210> 10857

<211> 354

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-G4

<400> 10857

cacatttcag tgtttatgcg gtgtccgaga agcctactca acccgccgca ttaaagtcgg 60

cttcgcatcc attcgttga cgcgcaactt cgacgtgtg caaatcacac cgccccactc 120

ctctcagctc acaacctctt cgatcctctc cgctctggcg gcgtccacac ctcaccatgc 180

agaaatcttg gttctccgca ccggcaagca atgggtcctg atacggatca tagcgccgcc 240

gcatcgctct ccgaagcctt tgacccccac ggtggccaat gagcagtcgc cgtaccagca 300

gttgtgtatc ttctcagagg cggcagtcac ggatgtggag tactggcagc acat 354

<210> 10858

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-G7

<400> 10858

gtatttttta tatattccaa aaatattctc cataaatttt caggtcaatc cgagaacttt 60

gattttctca caaagagcac accatggcaa ttctgctgaa aacaacatct atccgcgtta 120

gttccattca aatcatgcaa actagagtcc aaaacaagag aaaaagtgtt tggaaaagta 180

gatacgatgg agacatatca actcccccaa gcttaacaca ttgcttgtcc tcaaacaatt 240

cagttgacaa actgaaagtg acaaagaaaa actttttacaa actctatttg atcttggtgt 300

tgcaaatatg tcgaaccaat gttcatgttt tcagcaagga ttatgaacta accatattca 360

caataacact taggtctcac atttactcat atcaatggca taactaacta gcgagcaata 420

ataagat 427

<210> 10859

<211> 456

<212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-024-Q1-E1-G8
 <400> 10859

attcgccggt ccacgaggcc ttctcagct aagtatgatg tgaagccgaa caatgccatt 60
 cttgccgagg acaagcactt gcccatgtac gatgagttgt ccagcaagga caatgttgag 120
 tatattgctg gaggagccac gcagaactct atcagggttg cccaatggat gcttcaaact 180
 cctggtgcaa caagttacat gggttgcatt ggaaaggaca agtatggtga ggagatgaag 240
 agcgcgcgcta aagctgcagg agttactgct cttactatg aggatgaggc tgctcctaca 300
 ggcacatgtg ctgtctgtgt tgttggtggc gaaaggteat tgattgcaaa cttatctgct 360
 gcgaactgct acanacttga gcactctaaag atgctagaga actgggcact agnttgagaa 420
 agcganatac atcctacatt gctggctttt tcctac 456

<210> 10860
 <211> 452
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-024-Q1-E1-H2
 <400> 10860

cgggtccacg ctttcttttc ttgttgatc ggtgtggcat cgccttttga caagcccttt 60
 gtctcgattc tcccttttga gctcagctcc accgaccaga tgatgatggc tgacaaagag 120
 ctcgatgtcc atggctcgcc gggttccgct ggctccacta acagctgtgt gcgggggctt 180
 gcacaggata cccagcaagt gtttaggatt ccacacaggg cagttcttga catgctccta 240
 gcacaccttg gcctatcacc ggctcagtat gaacatgttg ttcattgagga cgacaagatc 300
 catgtgaccg tctttttcaa cacctctacg ttgggtcctg gaggaccaat cagtatgaaa 360
 gtgtcatgtc gtcattccta ctggtctatt ttatgcctaa gacatgcaaa gttgtggatc 420
 gtcttgtaag ctacatgtgc tatcgtatct cc 452

<210> 10861
 <211> 455

<212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-024-Q1-E1-H3
 <400> 10861
 cggggcgacc cagacttgat tactctgggt gaatctgac ctttccatgg ctatgaaact 60
 gaaactgttg tggcacatct tactaagttg aataacatag ccaccctttt tactcatgat 120
 gagaaaactc gctattactt tattctcaaa ttatttcctt cctcattaaa gggatgatgt 180
 aaagcttggg acaatactct tgctcctagt tgtgtgcgta gtccccagga tatgatttat 240
 tacttctctg aaaaatattt ccctactcat aagaaacaag ctgccttgca ggaaatattt 300
 aactttgtgc aaattaaaga agagagtctc ccacaagctt gggggagggt ttgccaatta 360
 cttaatgcct tgctagatca tcatcttaag aaaaatgaaa tacttgatat cttctataat 420
 ggactaaccg atgcttctag ggaacttcta gatag 455

<210> 10862
 <211> 378
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-024-Q1-E1-H7
 <400> 10862
 ggtccacaag acgacagaaa ggggggtcct cggagggttc atgtacgcct accagaactc 60
 cgccggacgc ctcatggggg tcttcccaa cgaatccgag gtcgcgcgct acaagtacaa 120
 gctgtagtgg tagaaggcat catcatttct ccccgtttct ctaccgcaag tggtacttct 180
 ttgcttttat ctttctctaa tctcgtgtga gcaatgtgtg gtcttggtgt aataaatggg 240
 gtgccttgct gcacagtagt gaggaattca tgccaaaaaa aagaaaagaa ataataaaaa 300
 aaaagcggcg gcccaaaagg ttccagccta acttatgctg gaaggcaagt taaaaccctt 360
 ccaaatggc tacctaata 378

<210> 10863
 <211> 310
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-025-Q1-E1-A2

<400> 10863

actcacgggt cgacgaccga cactatactt cacacgatcg gttgggttct cttgtgcttt 60
ttgcctgcta gggcaataga ctagcaggaa tggttgtttt catacgttgt gaggatatga 120
gtagaacatg gagagtcttg cagtgtttct agacgtcttt gtcccttcaa aagcggctctt 180
ttccttggcg acctctggca gatgcatgcg tggtagcggc attcggccag gttttgggga 240
cccatggtct ccagtgtatt tttttaatga cgatgggtcca tgacgttgga attttgagct 300
acggtggccc 310

<210> 10864

<211> 267

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-A3

<400> 10864

ggtcgacgat cgactctaag ggtacctgac tcgcgatcgt ggcttaggga aacgtaataa 60
taacactgtc acgttcatgg tcatgactag tgttcctatc agtgttgtca ggaccatggg 120
catcgcagcg tatgtgactc acattatgga gtatcgcttg tgtgtgttcg ttaatagctg 180
gtgcatgttg aaccacggca cttgtgtgct atctaacggg acatgtaggt tcatcgaagt 240
tgatggcagc atggctgagc tcatcag 267

<210> 10865

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-A7

<400> 10865

ccgggccgac cgaaaaacga cagaagggga acctaattag cttggacttg tacaagaaca 60
acgtttcggg gactatacct ccaacacttg ggaagttgaa gtcccttggt ttcttgccgc 120
tcaacggcaa tcgtttgact ggaccaattc caagggagct ggccggaata tccagcctca 180
aagttgttga tgtttctggt aataatctgt gtggaacaat tcccacgact ggaccatttg 240
agcacattcc tctcagcaac ttcgagagga acccacgctt ggaaggacca gaactacaag 300

gcctggctgt atatgaaacc aactgctaaa cgccacggg aagtggaat atgcttacga 360
 agtaacgggc gtacaagggt taccggagat cgggggtgat 399

<210> 10866
 <211> 434
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-A9

<400> 10866

cgtctagaa ttcacgggta gacacatatg tacatgtgca tgcgccaat gacttgtggg 60
 aagcgctcga atctaagttc gagggcgccg attacaagat gtatattata gagcagttcc 120
 atgattacaa gatgggtgag aaccgtcctg tactggagca ggctcatgag ataatatgca 180
 ttgttaagga gcttgagctt ctgaagtgcg agttacgggg caagtttgtc gcgggctgca 240
 taatcgctaa gttccccaat tctcggagga actttgccac cactctgaaa catcagaggc 300
 gtgaattctt cgtggaggat gtcattggcc atctgagtgt tgggcagaat tcgagggcaa 360
 aggactcgca cggaaaatgg gccgaaagga cttctgttgc caacatgggg aagcacggga 420
 acttcaactc ccac 434

<210> 10867
 <211> 346
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B10

<400> 10867

ctcgcgggta aacgctgcgc actaacgaga gtcggaggag ggggattgtc agcgacagag 60
 cacaggaaga gcatcaaagg cccagcccaa gacccaaacg caagcctcta cttccgtctc 120
 ggcttgcagg cctagaatgg gcccttggtc ttgtaacgat ataaacagag tgttcccctt 180
 cgggagtagg cggcggcaga tggctggtgg ctggcaagga tagcgtgtgc gtgtgtttct 240
 ctctcctccc tctcgatccc cctttcccca tgggtttgta gctcgaattt gtaatcatgg 300
 agtaatggag aggtagccct gacagaaaga ctatgggatt caacac 346

<210> 10868
 <211> 427
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B11

<400> 10868

ctcgcgggta gacacgtctg actatgggtgc gtcctatgaa cattttgccca tcgcacatga 60
 ggatgtgtac aagctgggtg agacaattaa atcatcttca tgttgtaaga tcactcgtga 120
 acctggctct gtcaagggag ggtccactgt gattgctttt gcaccagacc cagatgggta 180
 catgttcgag cttatccaga ggggtccgac gcctgagcct ctctgtcaag ttatgcttcg 240
 tgttggtgac cttgatcggg ctatcatgtt ctacgagaag gcccttgagg tgaagcttct 300
 gaggaagaag gatgtgcctc agtacaagta cactattgcc atgatgggct atgctgagga 360
 ggataagacc actgttctgg agttgacata caactatggg gtcacagaat ataacagggg 420
 caatgca 427

<210> 10869
 <211> 419
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B12

<400> 10869

ctcgcgggta gacgagaggt ccgagatgca ccctcagaat ccaatcacat gtgaacagat 60
 tgctctccct tcagtgacca ccattgagca tgtgaagccc atatttgatg agcatgggta 120
 tgtctgcaag tacgagatgt catggcacac tgggacgcac agaggtcata atccgccatc 180
 catcttcgct cttgccgagc tgaggggtag actctattgg aaggcgtttg tatttcctga 240
 tacatcctca ggaagctaca ttgtgggtgct catccacaat ccacaatgtc agctctcatt 300
 tgcaaaggca gggggtgata agtggacctg gctaccgcct gattatctct atgatgactg 360
 cacttataaa gatggcatat tgtatacagt gaatgttaaa ggagaattcc acgcattcg 419

<210> 10870
 <211> 355
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B4

<400> 10870

gagaagcgca agaccatcaa cggcgacgac ctgatctggt ccatgggcac gctcggcttc 60
gaggactacg tctagcccct caagctctat ctcaagctct accgggagat ggaggggtgac 120
acgtcaaagg gttcgaatc tgagcaggct gcaaagaaag tgggtgcact gaatgggcag 180
cctggatcat cgttcaacgg catgtaaggt ggaggatgat actgatcggc gtatgacaaa 240
catacacata caattcgttg gcagtgtgat cctagcagta ctgcgccttt gtggccgggg 300
aaagtcccca gcactctgct tagttctgtg catgcgggat acttgaaata ccatg 355

<210> 10871

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B5

<400> 10871

ctcgtgggtc gacgcaactc cctaaattga gtacgtatga actatattta gttgcgtaaa 60
cggaacatta cttaaaacct tgcaaacaat gtttcaaatt tagaactt taattaagtt 120
aggaatattt tttaacacac acgaacgaat ttaaaaattc cagtcattctt ttgaagctat 180
gaagaaattt tcaacttcct gaacattttt tcgtaaatgt gaacattttt ggaatttgta 240
aacaaaactc gaaaagcgga acttagtttg aaattatata caatttgttt aaaacaagaa 300
catttttaaa attatcaata catttttgaa aacgtgaaca ttttttaaaa ttccagaaca 360
tgatttgaaa acatgaacat tttttgaatt ggtgaacaaa ttttgaaaac agggaaca 420
tcctagattc ataacaaaat 440

<210> 10872

<211> 302

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B6

<400> 10872

aacgccctac attgagtcgt actagaatac gctgagctaa taaagagggg atctaccgca 60

gaggatttgg gagccggcca tgctgaagca gcacaagtgc aatgattagg tttatacaag 120
gctcctcaca acgaggaaga accaagctct cttagtcctg accctcctgg aacggagcct 180
gagcaagttg agtttgcacc tgcaacgaaa caggaagatt ctgaaggtga taggagggga 240
aaaatgcggg gcgaagagag gaaaagggac aggagataag aggcggaggc gtggaaggca 300
ct 302

<210> 10873
<211> 439
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B8

<400> 10873

caggtctaga actcacgggt cgacggttga cttgaaactg gttcataaaa tcacccccta 60
gtggtgaatt aatggcagac atgcaactga ggtaagacaa ctaattgggt caagttgcgg 120
gttgacgatg gacttgcaac taatgcaaaa aaagagtcgg gacctattgc gatgacaaat 180
caaacatcaa gtcaagttag gaatcgaggg tcaacttgca gctaaagaaa aaaaagagtt 240
ggacctagtt acaagttaat agtggacttg gaggaaaaaa gggtcgatca taattgcaag 300
ttgagggtaa aattgtaact aaagcaaata gaaagaagca caaaaaaggt taaacaaaac 360
atcgactcta atgaaaaata agacgaaaat gaaaagagga gaatggggag aggcaaagca 420
gccaaagaat ggaagtgat 439

<210> 10874
<211> 322
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B9

<400> 10874

cgatgacgta ccaatctaca tcgaaagacg ggacacctcc gcctctatca agtggtatca 60
gatttccagg ttgctcgggt agattttaca gtttttcgta gtttagatcg agtctgttct 120
tcatacctac agtccacgaa gaaagccaca aaaaaaatta gggttagttc atcatatccg 180
aaccaatctg agcctttgca taatcttttt agggttttgc tttgttgaat ttgcggttgc 240

atcgtcgtgt ctagttgcag gtcttagagt ctagtctttt agagtttcga gttctgggtca 300
taagttgtca cgccggggcc gc 322

<210> 10875
<211> 385
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-025-Q1-E1-C1

<400> 10875

ggtctaggac tcacgggtcg acgatggacg tgaagcttgg tcatgctcgc catgcgggtt 60
ggtgctcgtg cgcattgcagt ccggcaagtg ctatctgttc ccttgcagtc cgtcaaccat 120
gccatgcaac tcagagacac ttcccatgcg gttcagagct cgtgcgtgtg taatctagcc 180
agtgtctgtg catgtacagt ccagcgagca tccgtgcaca gcagcgctc tgccacaaca 240
ttcagtagag gattccccta gtttggaaaa tgctaacttt tggattctaa gacgaattag 300
gtcncttaat tatgatgata tgttgctaga ccaattagtg tccatgcaca acagcttcta 360
agaccaattt tgaattaact tttgg 385

<210> 10876
<211> 421
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C11

<400> 10876

ctcgcgggta gacagagaac cccaagcttc tgatcaatta catttttagta ctcacacttt 60
ttgctgatga cttcagatct gaacctacgg atatatgtgc ggacttgaaa atgaaccgcc 120
agatgcttaa accatattat gaccagctgg gatgcaagtc cgtgtcaaca ggtgctttta 180
aaccagtttt tatgacactt ccagcacccc tcaagttccc acaacaagtc acaaggagaa 240
ggcggcgaaa ataaccatct tagttattgg tttccatttg atatggttgt gataggaaag 300
gtatgcattg ccaccgtcga acctatgtgc cctcagctca gtttcaccaa tgtagtggag 360
aaaatgatga aggtggttgt tctgtctttg ttttctattg tcacttggga attgctacga 420

<210> 10877
 <211> 359
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C2

<400> 10877

gggtcgacgc ctcacacaag cgtgaaacga tcttgggcag cgctggggac cggcaagtca 60
 cgagttctta cctcgaaggc gtcattctgg gaaatcaaga taaggataac ttcctcgtgc 120
 cttactttcc cgagtaggtc atccccctcaa cggccccgta acatatgaag tcttagaatg 180
 cgatcgtttg tcttttaaca ttccgtgttt tctggagtga aacacgttgc acgctcatcc 240
 tcctaagccg agatattcca tggccacaga tttcaacacg gatcgtgagt ccaacttaga 300
 cgacacagat gtcaagaaag ttcttgacga tgttcgccac ggctaagtcg aatctggag 359

<210> 10878
 <211> 420
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C3

<400> 10878

aatttacggg tcgacgtcca cataatacca ctagaggaaa gacaacatac atctcatcaa 60
 aatatcaaac gaatcccaaa ttcacatgac tactaatagc aagacttctc ccatgtcctc 120
 aggaacaaac gtaactactc acaaagcata ttcatgttca taatcagagg ggtattaata 180
 tgcatataag atctgaacat atgatcttcc accaaataaa cgggcaagca tcaactacaa 240
 ggagtaatca acactactag caacctatag gtaccaatcc tagacttaga gacaaaaatt 300
 ggatacagga gatgaactag ggtttgagag gagatagtgc tgggtgaagat gttgatggag 360
 attggccccc tcctgatgag aggagcgttg gtgatgacga ctgggatgat tccccctcc 420

<210> 10879
 <211> 396
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D1

<400> 10879

ggatatgtaca ccggccagtt cgtctactgc ggacgccgag ccaccctctc cgtcggcaac 60
gtcctccccgc tccgctccgt ccctgagggga ggcgtcatct gcaacgtcga gcaccacgtc 120
ggcgaccgtg gtgtcttcgc cagggcctcc ggtgactacg ccatcgtcat cagccacaac 180
cccgacaacg gcacctcaag gatcaagctc ccctctggtg ccaagaagat tgtcccaagc 240
agctgccgtg ccatgattgg tcaggttgct ggtggtggca ggactgagaa gccaatgctc 300
aaggctggta acgcctacca caagtaccgt gtgaagagga actcctggcc taagggtcgt 360
ggtgtggcca tgaaccctgt ggagcatccc cacgga 396

<210> 10880

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D10

<400> 10880

ctcacgggta gacagaaagc ccaataagct ctacgatctg ggacacggag ggaaacattt 60
aatcatctcg cgagctgggt aagggatgtg aggcaatttg caaagggcaa catgacaata 120
atgctagtgt gaaacaaatg tgatctatct cacaggcatg ccgtgagcta tgaggaaggt 180
aggaagtctg caaatgagca tggctctgatc tttgtggagg catatgcaaa agctgcacaa 240
aatgttgagg aggtgacaga ctgatcgatc cttgttgcat ctctgtgaaa ttaacgcctc 300
tctaggcatt ttctcatgcc atttcaaagc cagggttttg ttcagactgc tggagtcac 360
tctactccca atgtctgagt tgattgaatt gtacggttta atttcgtgca aaaa 414

<210> 10881

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D12

<400> 10881

ctcgtgggta aacgcgcatg gctaaaggta gtcctatgac tgcgggttga accttggcca 60

catataccat gtgatgattg ttgctactaa tgatgtatcc acatcgtaat cctgagccag 120
catgtgtctc gggaaaacta gtttatgaac tgtgggaatt cgtggatgca tttctagtca 180
tagtaaacag tccttgctgg cacgacgttg ttctggtcag gtcagatcct ctgcctttcc 240
tttgctgct ttgctgggtcc gacagaattg accgtcccgga gtatgtgcat gttgttcttt 300
agtcggtttg ttccgggtatt gcctggaaac aggaagatct catgtgttaa taatcatccc 360
ctgtctatga tctgtccatg cgcgtcaaga ttccgaaata acgateccgc 410

<210> 10882
<211> 123
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D3

<400> 10882

gggtcgacgt accacgggag ccttaattcc atttcgtggg tgacatctgt cgcgacaggt 60
gctgcgccac gtgtttctc tagggaatgg tgatttccca cgtgggacca cccagttgt 120
ctg 123

<210> 10883
<211> 435
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D4

<400> 10883

gggtcgacct cgccgtcaac tgcgaatact gatcagatcg agccagccta gatcaagact 60
tgaaccacaa agcaacctag acgataccag agagagagag agagagagag atggtaagt 120
tagtgcagtg cacagaccgt tatcgtcagc gtcctggatc atcaacctga cctcgtcgag 180
cgtaaagtgc tcgccggcct cgatggccag ccgctggatg tccatgtccg gcctcgatgg 240
cctcatctgc ccgaaagatg acatgggtgag taacccccaa tctgggacac ctcagacgat 300
gacagaagag agaggaggag tcatgagact gtgatagcct ggttttttgc cttcgctcgt 360
tttttcggac tttcttttgc atcgactttg gattttgagt tttgagtcaa gtcaaattgga 420
cttgaacact tgggc 435

<210> 10884
 <211> 444
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D6

<400> 10884

```

ggctctagaac tcccgggttcg acatattttt caatcccact accgtaata caccaagttc   60
atcaaagcac tcacatctac acagaagtag gtttacacaa ctgatggttc attagcaatc  120
tcaaaaacaa tcaacaacta atgggttcacg ttaaacact gatttcacgc gaacataagc  180
aatagcaatt gattagcact ccactataa ataaatataa atctctgtaa ttagtttatt  240
gaagcaaagt taatgagaga aaaagttatc actcaaatgt gttatctcca ccctttgtcg  300
aaagtttgat agaatctgag tccagtcgtc gcaattaggc ttgactaacc ccctacagtt  360
ttctggccaa aaaatgggta agcaagcttt tgggcctggg ttatgaccgg ctaagttggg  420
tttggtagta tgggtcgacca tgat                                     444

```

<210> 10885
 <211> 434
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-D8

<400> 10885

```

ctcgtgggcc gacactgcac gctaaagtga atcatattaa ccagcactag agtctaattc   60
tagcaactca gccgctcacc tgcagcaaat ggaatcaggt gaaaacaaca tgggctcgaa  120
tgatggacca aacagcaaag ctaacttggc tgcgaggcaa cgcttacggg ggacagatga  180
gttgcatgaa caatttgtgg aggctgttac tcaacttggc ggtcctgata gagcaactcc  240
taaaggagtt ttgagaatta tgggtacacc aggattaaca atataccatg tgaaaagtca  300
cctacagaaa tacaggctag caaagtacat tcccgactct tcagctgatg gtaacaaggc  360
tgataacaaa gatccagggg attcactagc aggacttgat ggatcctctg gaatgcagat  420
atctgaagcc ctga                                             434

```

<210> 10886

<211> 396
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-025-Q1-E1-D9

 <400> 10886

 cacaaaggcc cattataact aacacatgta ctccatgaaa agcctatgga caaaaccttc 60
 aaatataact cgaggcaacc attagaccat agagattgtc atcaattacc aaaaccaaac 120
 atggggggcac cgcattgttct ttcggtgtgt catcatcatc cgtcgggtgcg tcattattat 180
 attatgacga gagtcctgca tggactcaac aattatagtg attatgagaa catcatgtgt 240
 gatgttcacg acatttggcc tttcacaacc atgcacattt atcccttcac catgtttact 300
 ccagcattca tatcccaaca cgaatctcct cgtgacaaaa tgtgtctgga tctctgtagt 360
 gcttttcata ctttgcaa atctgacactc caaaca 396

<210> 10887
 <211> 163
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-025-Q1-E1-E1

 <400> 10887

 aattcagggt cgacgccact atcaaactgc aaaacggaat ccttagaagt gtgtcgatca 60
 tcattcatgt tcacatgtga ctccatttca agaaatatcc agtggccgca ttatgccaga 120
 acgcactatc atcattctac atagcgaagt gggatatccgt cgc 163

<210> 10888
 <211> 352
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-025-Q1-E1-E10

 <400> 10888

 gggtagactt cgttgtccat aacaatgcac acattgtttt cacaactaat tgcaacgcat 60
 tcgtagcaaa tatattagag tgtgacgcgc ccaccttctt gttttgtaca cggaccacta 120
 tgggtgtttg atatgtgttt cacgtgcgct agattcgcac tcaattttga tcttcttgtt 180

gattatgatt gtgtgttttc cttttgttga tatggcttta ctggtgcaa gggatattgg 240
 tgctcagggg ggagcgagct attggttggt cactatgata ttgttacgca ccacagtgtt 300
 agcgtacatc ggtgtttcac gttagcctcg tacggatgcc acgattatct ac 352

<210> 10889
 <211> 413
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-E12

<400> 10889

gggtagacac ggcgttcgag atcattgcta actatggaga tgccgaagtt gcgacaccaa 60
 ggaaatcatc gagatcatcg ccggggagag caaggtgagg acggcaaatt tgcaagccat 120
 cgtcaaggtg tgcatatgag ttcttgtaag gtgcgttcaa gaattcgggtg gtgtgagtcg 180
 tctgctgcac ttgagatgcg tcaactgacgg aagagaattg agagtggaga gcggatggaa 240
 aaggaaattg tgccttgcat ttccgttcgt gatcaagaag ttccaacgag ttcattat 300
 ggtaaagggtg agttgcacgt atatggcgag ttgtgttgct cctagacagg aggtgtcgtt 360
 cgataagata tgggatcgac ggcaacaaga aaatgtgaag atgttggcgg gtg 413

<210> 10890
 <211> 270
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-E5

<400> 10890

ctcacgggtc gacgttcac tctaaaatgt ctctctgata caccaatgta gggaaacatt 60
 ggtgtaactg ctgctgtttt gttctctctg ttccggtttc atgatcatat cggatcatgat 120
 gggtaaaata gggacagttc atgtaaacgg atgggcactg gacatggatc tgtttattta 180
 ggtcacccta tcaactttgta agaaaactca ttattgcgaa agtattactg aaagtgcac 240
 tgtgcgtcta gcagttgcat cgtcctgtcc 270

<210> 10891
 <211> 411
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-E9

<400> 10891

gggtagaccg cgcacgacca gcatgggtcg taagctctcc ggaatggccc agccagtcgt 60
cgaatcctcc tatgtcccaa cggggtcggg cggggtaatc tgtgtcggca ctaggatgaa 120
aggggcgcgt gcttctctggc acggcagggg aaacaactgc ttcacatgt ctgaacctcc 180
ctgcgtcgcc attgccgcct ccctctctcg ctgtcgggtg cgctgcaact tccggcgacg 240
ttctccgcct tgcaagacag aaccggcgaa gtgacgccga cggacgaggt ggatctcgtc 300
tccgtcgcgg cggtcgggga caagctagac gacatctcgg gcagtggacc aggaccggtg 360
gcgaggatgg ggaacaacgg tgaaggatgg ccaatgctcg gccacgggaa a 411

<210> 10892

<211> 348

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F12

<400> 10892

actcgcggtg agacaggaga cgctacatag cgtctgagca tctgccctcc ccgtcgaggt 60
cgctcctcac catcgcaggc acggctctgt cggggccacg acgacgagag gagcagcaga 120
ggataacttt tccccacgga tccttctcgt cttccacgtg attcgagtct cctctctcca 180
tcaggttttg aaggcggttt tgtgtagaac agccacggag cagaaacaac gaacatgctg 240
cttcagcaac agcgtaatga tcctgatgat actcttatca ttttggttaac gtaatgtgtg 300
ttctgtcaat gtcgctccg gatgctagct agacctactg ggtagcat 348

<210> 10893

<211> 366

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F2

<400> 10893

gtctagaact cgcgggtcga cgccatgggt tacacgggtg ccgccaatca cgcctccaag 60

gacgagtagg ctctggtctg atctgatctg atcggcggcc ctcttgggtg cgatcttggg 120
 ttcggtgtgt gtatcgctag aaagaaactt taatacgtag tagtcggcta ggctccatcg 180
 tcgttgtggg atcagcagcg aagatgcgaa gtcgcaatag aatgcttgcg gtataactta 240
 tgcatttgcg aaatttgcta cgccatgcat gtctgccaca cgctatttgg atgtgggctaa 300
 agaactcctg aataattctg tacataattt gtaatgcttc catcagaatg gtgttccgtc 360
 gcaaaa 366

<210> 10894
 <211> 346
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F4

<400> 10894

gggtcgacga ctcaatccca cacgcacgtt aagtacaaga catatcgctt catgcactcc 60
 aagcaagttc agggagggcg aatgagttga gtcaccaat tagaacatcg aagggtagta 120
 gaacgcctct gccacaagg taagcttgag caatggaacg tggctctgact gtagccagta 180
 caggcgctcg tgctgcttcc ttcaccagt agagaagagg ataagggtca aactggagat 240
 ccgtcagtgcc ccacaaaaaa tcgagatctg cgccgagttt cacatccagc tcaattacct 300
 agcatgggtc gtggttcctc aacaaaacat caggcaacag agatat 346

<210> 10895
 <211> 422
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F8

<400> 10895

actcgcgggc cgacaccgaa cacaacggta agtcatagaa aacgtcgaag agcacaacga 60
 gcccgttcaa gaacaatcac acggaggatg gcggatccgt gttcttcgga gaggacacga 120
 acaacgggag ccagcagttg gaggggacgg agaccgagac cgaggactac accaagttca 180
 cgggtgctgaa gctgaagcag gagctgacca agcagggggtt cggcgcccag ctgctgcagc 240
 tgaagaacct caacaagaag gacatcgctg ccttgtatga gaagcacgtc gttggcggcg 300

cttgactgcc tcttcctcaa caatatgtaa cgcacatctt taactcgtgt gctaattcta 360
gatttcgtgc agcgttgtgt gctggtgaca cgttttaggt cagattgtga aacagcatat 420
gt 422

<210> 10896
<211> 358
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F9

<400> 10896

ctcgcgggta gacggtgggc acaagctcaa gacgaagcac tgctaccact ccttccatca 60
gcgatgcac ttcgactggc ttcgccttaa ccgcacctgc cctgtctgcc gcttcgcgct 120
ggccccacag tcagacgacg acagcaacaa ggatctggga ctgcctgaga aagtcgaata 180
gctcgacagt ttgccggaag ttgaattgaa gtgtgcagcc cttgcaagcc acgactgtgc 240
tagcaggttg tattcatctt cttttctgtt atgttctgtt ttttattgga ttatcgatca 300
aaagcttgta gtttgaacca aaattacttt tttcaacttg aaaacgggct cttagtgt 358

<210> 10897
<211> 409
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G10

<400> 10897

gggtagacat atcacacgcg cctaactgac acaatgacga gctgacacgt gtttcgtccg 60
gccaataaga attttacacg tggaaatttc ccattgggtcg gggccgttaa cgggttatcg 120
gatccaaaac ccgacctgat agcttaacag cgttccgtta cgggtggatgc cacgtgtcgg 180
tcacccttga cgaaagcact tctgtgacgc acgatttata gtcattggaag tggacacttc 240
cgtgatgata attttggtta tgtcatggaa cacttctacg acagcacagg tatgactatc 300
ttgattctat cataaaatcg tcatggatgt acatgcatga caaaaaacgc gacactactgt 360
gacaaacacg tatcatcacg gaagtgcatt tttttagtg tcatcatta 409

<210> 10898

<211> 251
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G12

<400> 10898

gagactaatc atcgcacatg ttccatttgc tctgttcgtg tgcagcgggt aactctactc 60
 atgtattggg gctcttgggc ctgaggaccg ggcagtgcgc gcaggagcct accgcttaat 120
 tgtgggtctg tgggatgtgg ctgtaattgt ggtcgtacgc catgaccgga gtagctagta 180
 gtgtgcgctg cactgactgg atgcaggcag cgatgcgacg catagccgga gggagggttag 240
 ggggccaccg a 251

<210> 10899
 <211> 364
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G2

<400> 10899

gggtcgacag gccaccaat agtcagtcga aagcaccgta tgagattctg caggctgcag 60
 catttgtcat cgcaaacgcc acaagagaac aacctaccct gacaggggaat gcaagagcac 120
 catcgggtgg gctcaaagtc agatgtgaga gttaatTTTT ctaaatacaga aacttgtact 180
 ctgaagattt tctagtgtgt ttcaagtatc aatgcgccct tgtgttcctc cagttcagga 240
 cgtcagaact actataccat tcagtagact ttgttgctgt tcatcactat tttcttgggt 300
 tcctcttggg ccgtcagtgt ttgtaagcga tgctattcat gtacgaagta cttgcgaact 360
 tttg 364

<210> 10900
 <211> 407
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G3

<400> 10900

ctcacgggtc gactgctcct cctgcatact atgctcataa acctgcgttc cgtgcgcat 60

tctacctagg ccaagtccca gacatggcgt cggagataag cgccggcagt gcacctcttc 120
cattgatgct tcctgagata aaagatgggc tgaagagcca catgttctac tgctagtcca 180
cacacaaatg aacgaagcct gaagcctgga gaactctaaa gattttatctt caagtataca 240
tggcaacctg aagattttat tttgtttctg ttggtttgat gaacattgga ctatctctag 300
tctctttaat atttccagag aatgattggg ttatggcttt atgcaagggt atgaatggaa 360
agtttacaaa agaaaaaaaa gaaggaaaaa aaaaaaaagc gggcgct 407

<210> 10901
<211> 415
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-025-Q1-E1-H10
<400> 10901

aacatctatg cctaaatcaa ctgtggtaat ttctgttgta tgcatacaag tatcatgcac 60
agccatattg atgctctcgc tattgttgtc ctcatctgta ggcatagtct ataatggaac 120
tcgtaaagggt gctagtcagg aggtggccca cagtgccttag gctaccaagt atcgttactg 180
atgtatctgt gcctggctaa tcatgtgcaa tgtgtggcct gctctgttct gtgaaatgag 240
ctgtgtgacc cttgatgtaa tgtctgtcaa ctttgaaagt gtcgcgtaac tatgtatttg 300
tatcttaaat acatgtcata aacctgtaac cctttgaaac aggacctgct gtctattggg 360
attactgatt aaagtgatat ttgggtcgaa aaaaaaagg gggggagaat aaaaa 415

<210> 10902
<211> 397
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-025-Q1-E1-H12
<400> 10902

cctcacaggc ctgaaaccat actgattttt ggtcacgctt gtcattcttc ttaagcgatg 60
ctcaatgact ctctcccata gcttcattgt atggctcatc agcttaattc cacggtaatt 120
agtacaactc tgaacatccc ccttggttctt gaagattggg acgaatatac tccgtctcca 180
ttcttctggc atcttgtttg cccgaaaaat gaggttgaaa agcttggtta gccatactat 240

cgctatgtcc ccgagacctt tccacacctc aatggggata caatcagggc ccacgcctt 300
gcctcctttc atccttttta aagcctcaaa caaataaatg ttgtgaacat gtaatttgcc 360
ctgtccacat gtaatcctct ccattcataa ataattg 397

<210> 10903
<211> 433
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-025-Q1-E1-H4
<400> 10903

cgggctcgaca acagcgggac gatcgttggg atcaaagca aagatggaat tgccttggt 60
gtggagaagc tgataacatc aaagatgata cttgctgggt cgaaccggag acttcattcc 120
gtgcaccgga actctggctt ggctgtggct gggtagcag cagacggat gcagatagtc 180
tcaagagcaa agtcagaagc agccaactat gaaaaggat acggagaacc catgcctgta 240
aaggaattag ctgatcgtgt tgctagctat gttcatctgt gtacactcta ctgggtggctc 300
aggccttttg gctgtggagt tattcttga ggctatgata cggatgggac acagctctac 360
atgatcgaa cttcaggcct ctcctataaa tattttggtg ctgctctggg taaaggaaga 420
caagctgcaa aaa 433

<210> 10904
<211> 427
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-025-Q1-E1-H5
<400> 10904

caggtctaga actcgggggt cgacgctcca cttgatcctg aggcttaggg gtggaactat 60
gatcaaggtg aagacactta ctgggaagga aattgagatt gatattgagc ccactgacac 120
aatcgacaga atcaaggaac gtgttgagga gaaagagggt attccacctg ttcaacagag 180
gctcatctat gctgggaagc aactcgctga tgacaaaact gctaaggact acaacatcga 240
agggtggttca gtgtccatc ttgtgcttgc tctgaggggc ggtagtaga tgcaacctcg 300
acgtggaccg taaaggccat ttctaccaga acttggttgc agacctagat ctgtgaattt 360

gccggttgat tgaagtgcc a tgtaattgac gcatttgtga agtcagctgt cacctgtact 420
 tggatgg 427

<210> 10905
 <211> 350
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-026-Q1-E1-A11
 <400> 10905

tgactcatcg gagctcgacg acaatctcgg gagcatcgcg cggtcaggga gggcggagtt 60
 caaggacgga ctcacagcag gcgcctatgt gtcgattagt agacagtgtg gtgtcggttt 120
 caagtcttcc taaatcgtct ggtaaaaggt tgtctgtgcc tagtcacgca actattagca 180
 tgtgtatgtg tgggagtcac aggctggtgt ctctgtcagt gagtcacgtg atatgtctgg 240
 ggagcttcac tataggggta ataagacagt ccactaccac aacgacgact aaatggaata 300
 tcttgaggac cgcagtagct gggatttagt gtgtagtcgt tcagagttta 350

<210> 10906
 <211> 440
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-026-Q1-E1-A2
 <400> 10906

cgggtgcgata ttncgaggac gccgtcgacg cacggaatgg tcgtggcaac ggcttgagaa 60
 accgccattc aagagttata acgtcacgtc ctacgtctgt catccccaga gatgtaccat 120
 ctctgtcagc accaagatga acgacattga ggccaccttt tcctttgaca tggaaaagca 180
 aaagtgggaa caacttggca gttggggcgt gcccttcgca ggccgtgggc actttgatcc 240
 gtacctcaat gcctttgttg ggctctccaa agattctgac acccttgggc aagtctactc 300
 ctgctgcttg tccagctcca gcactggcca cggccttgag tgggaagctcg gcaaggagag 360
 gctgttcagt caggaccag ctgagaggca tgtatgcgcc accctagtct acgtgggcca 420
 gagcaaattc tgcttagtgc 440

<210> 10907
 <211> 291
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-A3

<400> 10907

agggctatga aaagcaatgt gtaatatatt tgcagctcac ctgatatggg taactgtctt 60
 ataaaacgat ctagctgtat agagtgtcat catcagatgt tgccaagggt gctccaacgg 120
 aagtactcgt cttgcctcag ttttctgtga aatttccatt ggattaccta cagccgtatg 180
 aataccgtca tgtacttctc actcaacttc actgggagca ctgccaccga tgtgatatag 240
 atgggtgctga tcacttaca gatggatgcc agcagcaaga tttgcactac c 291

<210> 10908
 <211> 260
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-B11

<400> 10908

ctcgcgagtc cacacgaggc gctaaaatga ctcataggag ttctacgata ttgtcgctgg 60
 cataaagctg ctacatttat cagcgtatta ttctggagaa gaatcagttg cacttttccc 120
 caccgtgca cggatgatg atgaccgtca cctaacatga accgtgggtt agcatgattg 180
 gcaaatgaca gactcacgtc tgaatgtgag gttggcatgc agatctacag ttgttggtgg 240
 agctgttctg aactatgcac 260

<210> 10909
 <211> 419
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-B12

<400> 10909

ctcgcgagtc cacggcgatc acatcaggca ctccataggag gattaccatc ggagtgccca 60
 tgggtgtgagc ttgggctatg ccagcacgga ttttggtctg aaggcgagat cctggagccg 120
 gacgctgtct tcagaggatt ggcacgactg ctttgaagta gacacggatg atatcccat 180

gacagatgaa gtatgttctg ctttgttccc tgggccacgg gacgatgaga aggtggagga 240
gccatcggtg agcgagctga tctgctacgc tcccaccctg agtattgagg atgatgttct 300
ctacatgatg tccaagctga cccttgatcc aaggaaccct gtggcatggt tagctgctgt 360
tgacatggaa aagaaaacac tggaaacttat ctctgttaat gatgaaattg catcccgta 419

<210> 10910
<211> 448
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-B2

<400> 10910

cctgcccgtg cgggtgccgat attccggggac gacgaccact ggccacctga tctataagct 60
tggcggcatt gacaagcgtg tgatcgagac gttccagaac gaaccgctg aaatgaacaa 120
gaggtctttc aggtaccctt ggggtgctga caagctcaac gccgaccgtg acacgggtat 180
caccatcgac attgccctct ggaagttcca gaccaccaag tactactgca ccgtcattga 240
tgcccctggt caccgttact tcatcaagaa catgatcacc ggtacctccc aggttgactg 300
tgctgttctc atcatcgact ccaccactgg tggttttgaa gctggatatct ccaaggatgg 360
ccacacacgt gatcacgctc tccttgcttc gactcttggg gtgaagcata ttatctgctg 420
ctgcaacaat atggacgtca ccactccc 448

<210> 10911
<211> 372
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-B7

<400> 10911

ctgatccaac aattgaaggc tagatttcac cagaggcaca ctaatatcca agtcaacctt 60
cacatactcg atggcacacg actttagtty ttagatccaa ctaatgaatg acagaacgac 120
gctttttgcca gaacgggggt tttgccaac caacatagga aaattgacgt gtgattgtat 180
ggcaaagcca cgatgatcga agaagctctc taacgcttgt accagattcg acagcattag 240
tcgtgcactg cacgctagca ttacaccgct acagagcgctc aaaactccta tgggggaacc 300

cgccacctgc atgtgtgaac taatcctaaa tgggaccctc cacaaatcat ttgatgggtc 360
catagaatgt gg 372

<210> 10912
<211> 444
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C1

<400> 10912

gggacgacac gacagaacgg gggaagcgat cgatggtacc tacattgaca agaagtgccc 60
attcactgga actgttgcca tcaggggcag aatcatagct ggaaccgcc acagtgccaa 120
gatgaacagg accatcattg ttcgcaggaa ctacctcat tttgtgaaga agtatcagag 180
gtatgagaag aggcactcca acatcccagc tcacatctcc ccctgcttcc gagtcaagga 240
aggcgaccat gtcattcattg gccagtgcag acccctgtcg aaaaccgtga gattcaatgt 300
cctgaagggtt gttccagctg gaaccaccgg aggcgggaag aaggctttca tcgctgctta 360
agcccaggct ctgattcatg agtagttcat agtcagacgt tttaagcact taaacctacc 420
aagctgctgc tgttttgcca tttg 444

<210> 10913
<211> 426
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C12

<400> 10913

tccacatggt tccccacatt gagtcatcat agaagcaaat cgctcgcgag atttctgttg 60
taacaacaag aagagtattc gaaaggattg cggttcgtcg tgtttcacia agaacagcat 120
ggaagcttct caaagatgct gcaaaatcgt caaagaggaa agctatgagg gggatgtcaa 180
ttccagaata cacatactgt gttgccagaa caactttccg aggtaagatt tacctgcagt 240
atcacttttc cttttgtaaa ttattattca attatttttc tttgttcaaa cagcgcatgc 300
attgggagta gctgctactt gggttgtaca atctgtcgtc caggtgtaca aatgttttat 360
tcgtcaacct gataatgatg acgatttggt cgacgagaag gaaaaactca aaatgtttgc 420

gagaag

426

<210> 10914

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C3

<400> 10914

cgggacgacg ccgctttcta tatttagtct tattatTTTT ttttgcaaT tttatactta 60
tttggtcacc ttttaaggta aaccggcatc tcttgatcca gccaggctat atgtcttcat 120
ctcaacctgg tgtttcttaa ccagtggtgg catacagtta tcatctgtta aagcatataa 180
tcaatggtga actggcatct ttcaatccgg tctggctttg actacctgtc gctagtatga 240
tcatccggtg ttcatcaciaa cccgggttta cttcttacat accagcattg catggtggaa 300
gttggttatt cacccttact acaaataagt tggtaaaccg acagcataat ttcatatcac 360
acgtattatt tattttttgc tatttttaca accttggtta cctaccaagt tgtgtaatgg 420
gcattatgac ccatccggtg gtaaaccgcc cggac 455

<210> 10915

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C4

<400> 10915

agctgaagga gaggctggcc aaagtgtacg aggtgaagga cccaactgc atcttcgtgt 60
tcaagttccg caccacttc ggaggcggca agtcctccgg attcggctct atctacgaca 120
acctgaatc tgccaagaag ttcgagccca agtaccgccg catcaggaac ggccttgcta 180
ccaaggtaga gaagtcacgc aagcagatca aggaaaggaa gaacaggaca aataagatcc 240
gtggtgtgaa gaagaccaag gccggagatg ccaagaagaa ataagaacat ttctgtcttc 300
atctattcac tatcagcctt tgcttggttt aggacggtat ccctgtggca atgttgctga 360
gtgcttaatt atgactagaa aagactttgc catttggtgc aatct 405

<210> 10916
 <211> 338
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C5

<400> 10916

gtgggtcacag ttgacaaccc tcagaagaaa gagaaccttc agaatgaatc tgttgtgggtg 60
 acccctgcaa aaccagctgg tggcaagcct gtcctatcg aaccaattgt ggtaaccgg 120
 aaggcgaagc tgtcatctga agtgatgaaa atgattgact cagcaatagc tggctctgag 180
 aatggatata caccagttat gtcagcagaa ggttcagggg gtgtttactt catgcaagac 240
 tcatcaggcc agaagaatgt tgcagtgttt aagccgattg atgaggaacc tatggctgaa 300
 aacaacccaa ggggtcatcc actgtcgact gatgggga 338

<210> 10917
 <211> 347
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-D11

<400> 10917

tcgcgagtcg acacaaggct ctagagttag tcatactagc cgagaagggc gaagatctga 60
 attgcaggat acatgcttcg gtcactttcc ttagatgtga ggtcgtatat cttcaccagg 120
 agtgtacttt tcgaggacgt accgcacgtt agaaggctga tgccacaca gacgatgtac 180
 cgtcagatca ggctctctgg caagatccac tggtagagat ttcagctccc atgtggaaag 240
 cctgggtgcc attcctcaga aggaggcatc ctccatcccc atgtcgagaa ataggttgac 300
 tcatcccat ggcatccac ggacaatgct gtggtccatc gctcagt 347

<210> 10918
 <211> 398
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-D3

<400> 10918

ctcgcgggta cgacatcatt cactatagtg aatcgggata tctgtgagct ggctgcgagt 60

gtgggctccg ggaaggagag ctccgcgccg gaattggagc tgtctgcggg gaaactcaat 120
ccgcacgcac catggttggc aatgaggatt cgtattggat cagcgagtcc atttagatgc 180
agcgtggtca agttagccgg actgtgggcg cccgcaataa taaaagagat tgggagacca 240
tgcagacctg ctactgcaa gaaccacggt gtacagggtc actcgagatt tttttgtac 300
aagccgggtg aatgagact ggggtcaggg gcttgaatcg gagttcctgc caaatggtta 360
gacagttggg ttcgaattcg ctccagttgt gcatcaca 398

<210> 10919
<211> 397
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-D4

<400> 10919

tagcagcgac attacgacac atcgctcgtgc tcaccaagat atgcacgttc tgctgcgtca 60
gacagccgcc gctgtcgtca caaggttacc taatacacca ccatcattcc caggaaaatt 120
ctataggacc aacatacatg cttcagctgc tcagatcaac tcctcccatt cgctgcgtc 180
cctcctctca atccaggacg cggatctccg acaagaattc tttcgcatcc aatcggagtt 240
tgcggaaatc atccatcaag atgtccttca tacctcgggg aagttctacc tcaacaacct 300
accgtccaac agtgacatcg acacaatgct acaaatgcat gctgacaaca accgttattt 360
catgactccc acgatagact gcagcttcat ccacgct 397

<210> 10920
<211> 368
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-D9

<400> 10920

tcggaggttg aagattttgc caagttgtca tttgagaaaa acgaataaag gaaagaaaaa 60
cctgtttata tctcaattga tgatggtaaa tcaaatgcta ccgtggaacg cttacagcac 120
ggctattgtg tcattcctag cgacaagaag tttttggttc tgtatgcttt cctaaaaaag 180
aaacagtcta ataaggtcct ggtgttcttt tcatcatgta gctcactaaa gttccatgcc 240

gagctttctaa attttctcca gataggggtgc gaacatatcc atgggagaca aaaacagcac 300
 aaacgaacta caacattctt taactttctgc aacgcacaaa aaggcatctt attatgcacc 360
 taatgtgg 368

<210> 10921
 <211> 404
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-026-Q1-E1-E12
 <400> 10921

ctcgcgagtc cacactcgac gctaaagtga gtcgtactaa attctttcgc atccagtcag 60
 agtttgcgga aatcatccag caagatgtcc ttcgtacctc ggggcaatgc tagctcagaa 120
 atcaggcgtc caatagtgc atcgactcaa tgcgacaata tgcaggctga taacgcccgt 180
 tctttcatga ctcccacgat gagaggtggc ttcattccaag ctccggctgc ttgagtcaag 240
 tcgaaagcag tgatactgtg tccagttctg aaacatcgat tgggtcatgt tgtaattaaa 300
 ctttaatgaa cttgtagtat gtctctttgg ttctgagagt cgttcaattt agatgtaatc 360
 gatgcgaata ctgtcttgca tttctcttcc gatcgctccga tgca 404

<210> 10922
 <211> 431
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-026-Q1-E1-E2
 <400> 10922

cggatgatgat cctccacgct cccgaggaga ggtccccgga ctcggtggag cagatttggc 60
 gcctggcaac gcagcctacc ttcttttgc atgctgctct agcagtggct gtttcattgc 120
 ttcttatgct atattgtgct ccacgggatg ggcagacgaa cataatgatc tatgttggtg 180
 tttgctctgt tatcggatcc ctacggtaa tgagcatcaa ggccgtgggc attgcgatta 240
 aacttaccat tcagggcgta aaccaggctg ggtatttcca gacgtggatg tttgtgacgg 300
 tttcagctat atgcttaatc atccagttag ttacctgaa caaggcattg gatactttca 360
 atacagcgct ggtttctccc atctattatg ccatgttcac aaccctcact attttagcaa 420

gtgccataat g

431

<210> 10923

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-E4

<400> 10923

gcttcacgtc atgctgcgcc tccgcggcgg cagcagaggt ggatacccca agaaccttga 60
gccaacctc cgcctccttg ctcaaaagta taatgagaac atactagtct gcctcaagtg 120
ctatgcacga ctaccacca gggccatcaa ctgccgttag aagaagtgtg gccatagcaa 180
tcagctaagg gaatagaaga ggtttatgtc caagtttgcc aaggcttcct aaacgttgga 240
aatatgctga atcagccgtc caacgtcata catattggcg ttttaagttct gtcccttggt 300
tgaagtcacg ttggatttcg cagaatcgtc taacgtcgtc atatataatg gagtctaaga 360
tttgtccagt tgatagtcct gttggatttt gaccctatgt aagctttggc atacattacc 420
tagc 424

<210> 10924

<211> 161

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-E5

<400> 10924

caggtccgag actcgcgggt cgacgcaaca cggataatg agtcgtacaa ctctgcgca 60
tcgagcgaac gggggaagag ggaccgctcc ttctgcatcg ccgcgagccg ctgcagcctc 120
tggcgacttc acgcccttcc tcgtgtcagg ttttggtgcc a 161

<210> 10925

<211> 473

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-E7

<400> 10925

gcctgccaaag tacgggtccaa ccattccccg gtccacggta aaaaataaat agtaatgtgt 60
 acatcttaat atctagcccc atattaagtc gttgggtttat ttttttgtga gggatatctga 120
 tgggtgggttt ctacaacctt tttttaaaatt gtgcatatgg tagaaattac aggtgggtgcc 180
 ctacaaagga acagttgccca ccagtacaaa agaattagat tatgatctat gaaaaaagca 240
 caagttttaca tatgtcttgg gagttgtatc aatgttcctt acatgagaga ttattttactc 300
 agataaaaat aagaacagta gtcttttttg gaggaacaaa gtatgctgag ataaatatct 360
 gaattctttt ttcattgttg actgggagat attgggttaga aagctacttt accgtgtcac 420
 acatggagaa gaagacgatt ggaaaatttc ttccaaataa ttacgaagtc atg 473

<210> 10926
 <211> 346
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-E9

<400> 10926

cgacttcgac gtcaagcgaa atcagcagct catcgaaaga cgggacacct ccgcctctat 60
 caagtggat cagatttcca ggttgctcgg tgagatttta cagtttttcg tagattagat 120
 cgagtctgtt cttcatacct atagtccacg taaaagccac acaaaagaaa attaggggta 180
 gttcatcata tccgaaccaa tctgagccgt gcacaatcct tttatgggtt tgcattgttg 240
 aatttgcggt tgcacgtcgt tgtctagatg ctgggcgtag agtctactcc tttagagttt 300
 cgagttctgg tcagaaattg tgacgccgcc ggcggaccat catcat 346

<210> 10927
 <211> 437
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F1

<400> 10927

ttccgggacg acgagatgag caagcgcacc aagaaagctg gaattggttg caaatatggt 60
 acacgttatg gtgccagttt gcgtaagcag atcaagaaga tggaggtgtc tcagcactcc 120
 aagtacttct gtgagttctg cgggaagttt gctgtgaaga ggaaagcagt tggaatttgg 180

ggatgcaagg actgtgggaa ggtgaacgct ggcggtgctt acaccatgaa cactgccagt 240
gcagtcactg tcaggagcac catccgtcgc ttgagggagc agactgaagc ataagttgct 300
accagcagtg ttttgccta aggaattatc tgttttttgt agtttagacg atactttgga 360
ttcagttctg ttggctgttt agtcaacggt atcattgtac ttggtgccat ggatgttttt 420
gttaaggtat tcccccc 437

<210> 10928
<211> 206
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F10

<400> 10928

ttcccaagtc cacagtggca tgtgatgaag tcaaagtcgc tcgttcatgg tgaagggatg 60
gtgatcgccc ttgcttgag agaagtgatg gcgatgacac gatgacacca atgtgccacc 120
tcgacatgtc ttctttgtag tgttatgtgt cggttacctg gccggtgccg ctccgttga 180
ctgttaatgc ttttggcccg gttttt 206

<210> 10929
<211> 412
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F11

<400> 10929

tccacattga tcccgataat ggtgcctatg aaggtctcaa cacagagctt catctgttga 60
atgagagcac cgacgatcaa gagcagtttg cagggacata cagtacaatc atgcatgcat 120
gggaagagat ctgaacgaga cttttgttta gattactacg gctactagct agtacacaag 180
tcaattcatc agagactaaa ccgacgaaca aactcaatac gcgtatggat acattataag 240
ttgaaccag gaagcacaga tcttagcagc catgcaatct ccccaaatta acccatcgat 300
ggatggatcat ggtataatta accaatacta ttaaggagta tgtcagttgt agagattgag 360
atcaaccgca gctttacgta cgtaaagtgt ttaccctgat gcagatggat gt 412

<210> 10930
 <211> 337
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F12

<400> 10930

gaaactaagt catagcacga ggagatcgcc aagctcacct ccagctagaa gaagatgcaa 60
 gaggagtatg cctgctcccc tcgaggagat tcccaagctc accgctgcct gctgggagaa 120
 gatgctcccc ttgaggagat agatatccag gctcatcgca ctatacggag ccatgttttg 180
 gcccgaagtt tctgaagtg taatgctgct tcagccgtgt ctttctgccg tgtcgtcct 240
 caaatgtagt ggtaacttaa aacgtgttat atatgtacat gtttgattcc gatgacatcg 300
 gggttttctt ctgttctact atctgtttga tctgcaa 337

<210> 10931
 <211> 429
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F2

<400> 10931

gacgttgagc tcaggcgggtg gcgcgtttcg gtctctgatg aatagatggc tacgacaagc 60
 aatcgaggcg gaggagagag gggttcgctc tgtgagctca cagtgagtcc aacatgcgtg 120
 agggagaggt cgggggatgcc ctgtagctcc caaatcggcg gcgaggatcc atggtggctg 180
 gcgatgggaa cggcgatgct ggcgaagttg tggcgcgtcc ttcactccat ggcttgggtg 240
 agaggacgag gaagacgcgg cggtgctttt tgaccacagtg gcacgacgtg gggtagccgg 300
 tggccgtgag aacagcgagc ggtggtgaca agctctactc gggttcctct agtcttgcca 360
 gacacggacg aggacgaggg aatgaggcca tgggtgtcgg tgggagtgtg tggcgtcgcc 420
 taagcgcat 429

<210> 10932
 <211> 458
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-026-Q1-E1-F3

<400> 10932

gggacgacgg caagatttat gatgtgaccg cgtatttga tgaccatcct gggggtgctg 60
atgtgctgct tgccgtgact ggtatggatg gcaccgagga atttgaagat gcggggccaca 120
gcaaggatgc caaggagttg atgaaagatt acttcattgg ggagttggac ttggacgaaa 180
cacctgacat gcctgagatg gaggttttca ggaaagagca ggacaaggac ttcgccagca 240
agctggcggc ttacgctgtg cagtactggg ccattccggt agcagcagtt gggatatcag 300
ccgtgcttgc tatattgtat gctcgaagga agtcatgac gggttatagg tgattgaagg 360
accattttgg ggtaaccaac acatttatag ctgggttatgg atggagagat tatgtacttc 420
tgtccanagg ggaagacaca ttgctgtatt gagccctt 458

<210> 10933

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F8

<400> 10933

tcccgggtcc acaagacgac agaaaggggg gttacaagac attcgacaga aggacacagt 60
tagaagcatc acatttttta aaggatgact gcctagtaat gaactgcaca gtaggtgtcg 120
tcaagaaccg tctcgaaca ccatagaata tccagattaa tgttccccca tcggatattg 180
gccgttgctt caaggagctc ttcgaactcc acattggctg tgacataact tttgaagtaa 240
gtgatgagaa agtccaggca catgaatgga ttcttgccgc tcgctccccg gtgttcaaag 300
cccaattctt tggacctatt ggtaaactg acatgggcat agttgttgtg gaggatgttg 360
aacctatcgt cttcaaggca atgggtcaatt tcatatattc tgatgagctt cctagtattc 420
atgaagtagc tgggtctttc tcaatgtgg 449

<210> 10934

<211> 267

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F9

<400> 10934

acctcgggaa atcacacaaa tcacctactc cctccttccc ttacttttga tactctctag 60
tcatgtgact agtagtaatc atactcaaag ttttttagtca ggccctattt ggaacgtgac 120
tactactagt cagcactaaa tgtctcaata ttaaattctt ctctctccct tccatttatc 180
tctcttcaact cacttgtgca acaacaatta tcgctatact cacgcgcaag gaaagaaagc 240
agcacagtcc tgttcctttt ctccctc 267

<210> 10935

<211> 410

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-G10

<400> 10935

cgttgtgcat ttactttgac aagtagcttc atctcgcagt tccacacgac tttcattttg 60
cacgtttttt tacgatcata gaagagtaga tctacaccat cctcgtgagt gtacatatgc 120
atatgcgtagg tctgatttta gacactcctt aattattcct ctaggctttt tatcccacgt 180
cctgttacac tgaagccatc gtcggtgtgg ttctgctega tctcctcccc tgcgtcttgc 240
tgtagtggcg tcatcatcgc caccgttcac ctccgacctc tctcctacag cctactgcac 300
tgatgttgtc atggcacgca cactatatctt cttctcctct atcctctgcc tcagaaccct 360
gcgattcttc cctccgcata aaccttttgt gtggtgacga cgctaggaac 410

<210> 10936

<211> 412

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-G12

<400> 10936

ctcgcgagtc cacgaatgtc atcatattga atcgcaagct ttcgggttca cccagtctga 60
ggtactaact cggatgaccc agtagtaaca atcacagagg tgctcccttt accgcctagc 120
cgaacaatcg ggaatgtagg ggtaagcaca ggagccaggc aaccagctt ggcaaaaatc 180
ttaagtcaaa ttgatgcata tttatggctt tataacgatg attacggaag gcaacccttg 240

tatattaaat acaaattggcg atgatatggt tattttgact ccgttgcgac cgtttatcag 300
 ttgaaagtgg cccatcgctg gcttctaccc cttttagat actacgcatg gtgtcccccc 360
 aataacaaga caacccttag ccgacgtctc ggtgccccaa agcgtttgtg tt 412

<210> 10937

<211> 398

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-G9

<400> 10937

cttggacttc attaccatgg attactctag aagtttgcca ttggattcc ggagtttgaa 60
 ttaccataga ggtgggcatc tcacagaatg tgggtgtatg cagacgagca tagctctcgg 120
 atataaatga atgagatgct cctgtatcga aaagcacaga tgccgggtgg cgattaacaa 180
 ggagcgtacc gagaacgacg ttgggatctt cttgagcccc ttccgcagaa acacaattta 240
 catgggcacg agcagtgggt gccggcttgg cgtacaacac tttccctgtc ggctttccgc 300
 agccaacagt ttttctgtc tggttggggg tggtttgggg aactcgcgc atatagtggc 360
 ctgattcccc acacttgaaa caagtcacgg aactggta 398

<210> 10938

<211> 233

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-H12

<400> 10938

caccttgac atccaactac gaccgtgcaa gacgtcgcgc cttagcaatc tctaaacaa 60
 cctccgaagg gttattgacc acaccggagc acgatcaacc tgaccacgag ggtctgtttc 120
 ctgcgagcaa acgaagaaca agcaagaaac tgagattgca atttggatat tgccaatata 180
 agatgaaagc tttattgatc aagggtgggt tccataaccc ctttgccggg ttg 233

<210> 10939

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-H4

<400> 10939

ttccggaacc acttagacgt cgtgaagtct aagtcgcatg acgtcatcat ataaaagttg 60
attgaatgtg actccgtttc ttgttctgtg ttcgctacag accacatggg cttttgttta 120
gctggagacc acatgggctt ttgttcggtt gtgttgcaact catccatcgt tgtgtttttt 180
ttttatttag ccacctaata catgcattgc tacactgtgt aatggagctc cgattttgtg 240
gctagcttgc ctcatgttcc gtccttgca ttogtgcac cttgttacac cttttcgttt 300
attatttaaa acaattactt tatatttaaa aaaggacaca ttttttttaa tgtaacaatg 360
aaataacagc caaaaattca gaagaagaca attaatttag ttgggtgcaa acataggata 420
tacaactatg tgctgtcaac tagcgtgcaa at 452

<210> 10940

<211> 375

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-026-Q1-E1-H9

<400> 10940

gatatgtgca gtgcggagat cttgcgccag tggcaacaaa acatttgctc actcatcttc 60
agaagacttg aagctcgacg ccgaaccgcc ttgacttgca aacaggcang aaggtttagag 120
attctatgtt ttggagagac agcgggttcac ggacgaagct tgtctgcttg ctcatgtttc 180
tcgtgectca tttcaaccat gatcactcga tgcagtttgt tatcaatgcc ccatatagtt 240
tcacaaagaa aagaggctct ccacagtaaa tcatgaaatg caccgcatg ctgccagcgc 300
ttgctcaagg atgaaggatc atggcgccang gcaaatgaga cgcatgcaac cgggtacctgt 360
ctaagctgat catgc 375

<210> 10941

<211> 302

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A1

<400> 10941

gggccgacac gccacgtaaa acagactact gtcataaaaa tgaaaagaag cagctctgct 60
 tacggagata agttgtcccg aaaggaatct ggaaattatt tcacctactt ttctccatct 120
 actgaagatg aagatgtctg cccaacatgt cttgaagatt atacttcgga gaatcctagg 180
 atagtaatgc agtgctcaca tcaattccac cttggctgta tctatgagtg gatggaaaga 240
 agtgaggcat gccctgtttg tggaaagaaa atggagttca acgagacgac ttagacctca 300
 ga 302

<210> 10942
 <211> 433
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A10

<400> 10942

ctcgtgggtc gacacgaaac acaactatgt cagtccttct acaaaatgta cgagcggctc 60
 gggctcttgcg tgcagcggcg gcagcaacat cagcttccat tgaggccaaa gtgttcgcca 120
 gaattgtcct taggaatctg gaacaccatc aggcaggagc ttcaacctga agacacaatg 180
 gcgagcacia gcgcgacgaa ttctccaaca gggatgact tctaaccttt ggccccagaa 240
 tggatgcaaa ctcgcgggta agttgtcgcc ggcatttgaa gctgccgcgc aagctgtgac 300
 cttggaactt ccaccttgag gagaactgtc agaagagatg aatgaacgtt caaccggcag 360
 ctgttgagtg tgcaattttc ctgttggttg tctgatgtgt aaaagtaact taaaaagtgt 420
 tagcgtagc atc 433

<210> 10943
 <211> 435
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A11

<400> 10943

gtcccggtc gacacgaaac gataaaatga cacataggag gttggcctat gaagattgca 60
 ttggcaatcg gcgctgttca tagatccaac cacccttttg cttgatgagc caaccagcaa 120
 tcttgatcgc aaagcttggtg tctggttgga atagaaatta tgcaattttg agcctagact 180

tggtgttatc tgcattccc aacattttct aaatggaatg tgcactatca tcagctacat 240
gcagaacaag accctcaagt tatatactgg aaattatgat cagtatgttc aaactcgtc 300
tgaacttgaa gagaatcaca tgaagcagta caaatgggaa cacgaacaga tagctaatat 360
gaaggacgta cattgtccga tttgggtcatg gatctgcgaa acttgctcgt caggctcaga 420
tcacagagaa gactc 435

<210> 10944
<211> 437
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A12

<400> 10944

ctcgcggggtc gacgatttac ccaacatgtc actccttcta ctccgaagac atcaacggta 60
tggacgccga tgaaggagac gaccaagaac cagcacctat agggcactgg aaagccacgc 120
catcatacga tgtatacatg gtggacacac ctaaaagaaa caacgacgag gatcaaaaagg 180
gcgcaaccag gaatcgctcc ctcgaaaaac aatcaaagcg gcagcgtaag cgccgcgcca 240
agccccacct cgacaaagac ccagccatag agcatggcga atcaacggaa gatgaacatg 300
ccatcgagca accgtccaaa cagggcgggac aaaccaaaaca atcagtcccc gggaaagata 360
atagtccgga cgacctcagc ccggacaagt tgccagaaca tcagaacctc caccaaaggc 420
tcgttgccac tacacgt 437

<210> 10945
<211> 360
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A2

<400> 10945

gggtcgagac cctcgggaac atcaacaggt cggggaccaa ggagtcatg gaggcctcg 60
ccgccggcgc cgacgtgtcc atgattgggc agttcggtgt cggtttctac tccgcctacc 120
tcgtcgccga gagggttgtc gtcaccacca agcacaacga cgacgagcag tacgtgtggg 180
agtcccaggc cgggtggctcc ttcacgtca ctcgtgatac gtctggggag cagctcggca 240

cggttaccaa gatggctctc gacctcaaag acgaccagat ggcatacctt gacgagcgcc 300
gcacaaagga tctagttaag aagcactctg agcttatcag ctaccccatc tccctgtgga 360

<210> 10946
<211> 203
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-027-Q1-E1-A3

<400> 10946

ctatactaag tcgtattata agangctctg gctgggcagc agtgagggtg cagacggacg 60
aaggtggggg ttcgcggtg gagcggagag gttatgacgg ccggatttcg aatggcgaaa 120
aggaggcgat gggagggagg aaccatgact tagggacgcg cttgtccaaa atgtanggtg 180
tgttacaaaa gtacccccgc cga 203

<210> 10947
<211> 404
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A4

<400> 10947

gtctaggaca cgcgggccga ccatggcgtc taccaacact gggggcatcc ccatcaaggc 60
cgaacaggat tcggatggct cggcccacag cacagctgac atgactgctt ttgagcaaaa 120
tcttctagtt cagatgcaca ccaggttcca aaccatgtca gagaacatca tcacgaagat 180
agatgaaatg ggtgcaagaa ttgatgaatt ggagctgagc atcaatgacc tcaaggctga 240
aatgggcagc gatggtatga cccctactag agtgaacgac gaagaatcaa agccagcaga 300
cagctcttcc tgagtgaagc agaagtagca gaagcaaggc gtattagtct tggttccatg 360
tcgatatcat cagccattca tcactaactt actgcagggtt agga 404

<210> 10948
<211> 309
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A5

<400> 10948

ggccgacttc taacaacatc actgatgggtt acaacttcac gtctcttcat gatcagcttc 60
agctgtaatt tggttccagc ctaagcaacc gaaacctcaa cttgcaaatt gtccaagtat 120
aagggcaagc cagccaaaag taggtaccaa tatgtgtcag gctgatcatg cgagagagta 180
gactactatc aaatacccag ttacatgtac ccaatttacc gagcatatca tagggcacat 240
gtaccaaaaa tggtatatca gacatttagt ggaagatcac aaacttctga aaaaaatgct 300
gaagcatct 309

<210> 10949

<211> 263

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A9

<400> 10949

atgacttcaa tgatcttgac atcgatcgca caaagaaagc ttggtagagc gaccacgtag 60
gggagacata tgagactgag gatggaatgc atcgatcaat atgcagtggg gcacaaccgt 120
tctttcagag agaacctttc acaatccgca tgagtttctt cagctccata gccagatatt 180
gacctgtcgc ccagaacctg ggttgctctt ggtgtccaca aaatatctgt gcaagtctaa 240
ggctggaagg gaccagattc cgg 263

<210> 10950

<211> 389

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-B1

<400> 10950

cgggtcgaga cttagaaacc aaacacacag cacgacacaa gatcggcatg acaaaacaac 60
ctgcgatcaa gatttgcttg acattgagtg aacatatgac atagtgaaaa aaagctcata 120
aatttaaaac agataaataa aaataaaaag gaaaaataa aaataaatgg aaaaaggaga 180
aaaattatat ttaaataaaa aaaatcagga tttctaatag ttcataatta aaaaataata 240

ataaaataga aaaaataaat ggaaaacgga aacaaaataa aacaaataca ggggtgtcata 300
 tggaagtcca caaaaataag aagaactagg accgattcat ggcagacttc aaaaaagaaa 360
 aaaaccataa aaaaaaaagc ggccgctct 389

<210> 10951
 <211> 307
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-027-Q1-E1-B11
 <400> 10951

aactgtctac aaccattggt agtcatgatg tacacaagat catcgattca gctgtaagac 60
 atacaaacgg tacaccacaa cggatgaggg caaaccaaga tacgccctct atctaccggg 120
 aaaggggacg atcgtttgag aatggatcaa tacagtttca tcatggaaat cacatcatga 180
 tgaccgcagc tctcttctat gtgaacgtac ttacatgat tgatategac atgtcatgtg 240
 atcatatcat cgctactcac ggtctcgaaa cttgttacac actgttctat ctgtgttcag 300
 tcttttc 307

<210> 10952
 <211> 423
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-027-Q1-E1-B2
 <400> 10952

gggtcgacct cgtctgcag cttcatgcca tcaatgtggt actaatgcac ataatacacc 60
 tatgatgctg cgtggacctg aagggccaag aacattatgc aatgcttgcg gcctcatgtg 120
 ggcaaataag ggcattgtga gggacctatc aaagtctact ccccatctc ttcaaattgg 180
 gtcaacaggt ccaaatgata gtcagaatgg aaacaccctc tctcagcaga atggaagcac 240
 cctctctcag caaaatggaa atgctgcat aatgcccttt gccgagcaac ataaccagc 300
 atcagcgacc gatgccaacg gtcacggcca tgggtcttca acaatgatga gcgggattgc 360
 tgcttgtttt taacggtgga tggatgaagg aacgtcatcc tctccttga gtgaacctcc 420
 tgt 423

<210> 10953
 <211> 242
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-B3

<400> 10953

agaccggaca ctaactccgc cgatgatgat gaccagcttg gtggctgctg ttgacatgcc 60
 ctgcttcctt tcctgtggag atgtgttcat cggcgtgtaa tttttgtaca tatcgactcc 120
 gtgccatttg gtcgctgtaa gacgcctcaa tgccatgca gcaagtgggt ggagttgtga 180
 gtttctgaat gtactgggaa tatgggtgta gtgatgtcag cataagaatg tcatgggagc 240
 ag 242

<210> 10954
 <211> 404
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-B4

<400> 10954

gggtcgacga gattgtcaat cctgggtccg tataatctaca caatatgttc ccctttgaga 60
 ggttcatggg agtcctaaag aaatatgtcc gtaaccgcgc taggccagaa ggaagcatct 120
 ccatgggcca tcaaacagag gatgtcattg ggttttgtgt tgacttcatt cctggcctta 180
 agaagatagg tctccctaaa tcgcggtatg aggggagact gactggaaaa ggcacgctat 240
 gagcggactc aataatatgc agggacgggc attcttggtc tcaagcacac tacacagtcc 300
 tacagaactc taccttggtg accccatatg tcgatgaaca caagaatagt ctgcgttcca 360
 gacaccgga gcagtgcgac gactggatta catgtgaaca catc 404

<210> 10955
 <211> 442
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-B5

<400> 10955

ggtcaagaac tcgcggtcg acattaaaca cgaaatggag tctgatcatg aaaacagggg 60
 tgtgaagttg acatacaaga ctctgaagga aaagatcaag gaaatcaaca agaaggatgc 120
 caaattctac agcaatatgt tcgctaagat gaccaagcct tcagcagaag aaagcaaagc 180
 ttgaactgga gcagtagcca aaggaaggat aggagtcccg gagtgcgctc aaggaagggg 240
 cagcttgtct gctcagctct atgggctggg tagatcacac atgtgcttgg agttgctata 300
 gactagagaa atttcagttt tgatattgcc aggcgatatt tttttcttgt caagaacaat 360
 gcatgtttag agctttgcat attacagtgt gtgctttccg ggaaatagat ggtcctgcct 420
 taagaatctg tgttgtgtgc ca 442

<210> 10956
 <211> 420
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-027-Q1-E1-B7
 <400> 10956

gtctagaagt cccgggccga ctgataagga aagcatgaat agaggaacgc gtgtagggga 60
 aggtgcacta agggaagttg eggcttatat tctcgaccat gcagttggtg atcgtgaatc 120
 gggtcacggg gttgggtttt ctgggtgtgcc tcccacagca ttagtccgaa gcttacatag 180
 gggaaagagc ttcaagtttg gatctctgca gatgtttatg gagaacgatg gaagttgcga 240
 ggatatgggt ccccggtgctt ttccagtgaag ggaggtacac aaaatagcag tgttagatat 300
 taggttagcg aatgctgacg gtcattgcag gaacattcga gtgtccaagg aagaacgtgc 360
 cacctgcaag ctgattccaa ttgatcatgg ctactgcctg ccagacaagt ttgaggattg 420

<210> 10957
 <211> 338
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-027-Q1-E1-B8
 <400> 10957

tcccgggtcg acatgtcacg caagtgttct acttgggcac gtacgataag catctccagc 60
 ataagtacga cctggccacg ccccccccc tcacaagcac accatacagc ggtgacgtac 120

gcgacatgac atatatatat atggtgggga cgagcttatg acggcagtgc ctgtgaatgg 180
cccttttggg cgggtgcaggg cgctgcactc atcagtaatc taccgacaga aggtcctcag 240
tgccatcact tcccgcctcc cctcgacaga tgggtgactgc caagcacatg atctctctcg 300
ctggcggggc ttgcccacac actccattca gcttcgaa 338

<210> 10958
<211> 172
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-B9

<400> 10958

ctaataaata cgattttcat cgttcttttg cacatcatta tcagcgcaac gctcttctaa 60
gtcacgggat tttaaattat caatatcgtc ttgtaatgtg aatacatact cgctactccc 120
ggtctctaga cttttgagta tattttctat cattgatctg tcttttcagt tc 172

<210> 10959
<211> 414
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-C1

<400> 10959

gggtcgacac tacagacgat gatgactcgt aatagtttac acacaacgtc caagatgaat 60
ggcttgccat acaccttggc caagagaagc caacaacaat ggcagcatta acaggcctca 120
tgaccactt ttgtgcgggc gatgacagct ggctatcccg atgcagcacc agtgacccaa 180
gtacatccga agttagagat ggaaacggga aatcacgacg cagcagaaat aataagtgcc 240
ggaataaaga atacaacccg attgagcatg gcggtaaca ccggattcag atgctctcgg 300
ccaggtcagc aaaagccgcc tctaaaagcg ccggagatga actgtccagc ctaaacaaag 360
ttctggacca aatatgtcag atccatagca ccctgataa acctgcaaat cata 414

<210> 10960
<211> 241
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-C10

<400> 10960

gtacgtatca catcgaaaga cgggacacct ttgccactac caggtgggtat cacatttcca 60
ggttgcttgg tgagatttta cagttttttt tgtagtttcg accgaatctg ttcgtcatgc 120
gtagagtcca gcagaaagcc ataagcaagc ttaggatgag ttcaccctat ccgaacacat 180
ctcagccctt ggagaagctc ttctgtatct gcattgatga agttgctgtt gcatcattgt 240
g 241

<210> 10961

<211> 289

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-C12

<400> 10961

tccgggtcga cgagcacagt atcgcggtta aggtccacac gagtgatata atgatgcggg 60
gtccggtcac gagcgaagaa atatcgcgag tggtcacgga gcttatgctc ggagaggccg 120
gaaccggagc ggcaaataat gttgccgagt tatcggtgct ggccatggag tccgtactgg 180
agatggggtc ttcgtgcaaa gcaatggatg agatcatccg tgagttgtgt gcaccaaca 240
tcatgcaggc acacgttgac gcgagcaagg aggagtcctt agatgttta 289

<210> 10962

<211> 276

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-C2

<400> 10962

ggtcgacaca aatctctaga ctgactcgac ataggaccga caagtggagc gcgttttgac 60
aggcacctgt attatataga ggtcatgatg tgtgtgtttg tgcaccttac tgcatatata 120
tatacacgta caaggaaagg caagacattt ttgcttgga cgagacggag cttgcttgtg 180
tgtttgcttt gcgtttgttg ctgtttatac ctaaggccg gtcggatcgg atgttggttc 240
aattgcacat gtttggtggt gatgaatcgt gcttat 276

<210> 10963
 <211> 407
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-027-Q1-E1-C3

 <400> 10963

 gggtcgacat cacggataag gtgcctgatac agcaaagtgt gttcaatcat tacggagata 60
 cgaagaacat cgagagcaaa catacggatac atttcgaagg aggatgttcc aaaggtagca 120
 tcggacgatg aagagatggt ccagatcggc ggagatcttg atgttgcaag gcatgctctt 180
 gtgcaaataa ctacaatgct gaaagccaac ttctttgaaa gagaagggtgc tttatcaggt 240
 tttccacctg tgatcccaga gcaccctttt gctgctagt gtgcccgatg agccaaagta 300
 tctaagcaga gacagtaagt ctgctgggca cgattatcca tattcgattg gatatcgtgc 360
 atcagacgat gtgcttcctg ttgaccgtta tgcagattat ggcagct 407

<210> 10964
 <211> 338
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-027-Q1-E1-C9

 <400> 10964

 ctgctaagct gtcagcataa atttgccacg atgggaacga ggactttgaa tccctgtgcg 60
 atccggccac ttatcacggg gcaccacggc acggcacgat gtggtttcaa gaggtaaccc 120
 cgaggattcg tggatacatt ccagagatac gccgggccga tcagtcgtga ccttctgtgt 180
 cctcctcttc ctcggtcggg gtggactggc gtggatcaca ccagcccggg cagtcatggt 240
 cgtaggtaca ggctgctgca tgctgcattc tccaacaacc tacgtactcc actcagaatc 300
 tcgtgtcagg aacatgtatc ggaccggtgg ctatgcta 338

<210> 10965
 <211> 426
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-027-Q1-E1-D1

<400> 10965

gggtcgacgg agaagaaaaa gttgaacacg atgcgggaga tcaaggtgca gaagcgcgtc 60
ctcaacatct ccgtcggcga gagcagggat cgcctcactc gagctgccaa ggtgttgagg 120
cagctgagcg ggcagtcgcc agttttctcc aaagcgaggt agactgtcag gtctttcagc 180
attcgtcgta agtagaagat tgcttgctat gtgacgatca ggggtgagaa ggcaatgaag 240
cttctctaga gtgggctgaa cgtaaagag tacgagctct tgatgaggaa cttcagtgac 300
actggttggt ttgggtttgg tagtcaggag cacattgatc ttggcatgaa gtataaccat 360
caaccggcat ctatggtatg gacttcttcg tggttctgga gcgagctgga taccgcgtct 420
cccgcc 426

<210> 10966

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-D2

<400> 10966

ggtctagaac tacgcgggtc gacggatcca gcaatgcagg ttctcaggag cgtgaagtat 60
tgccggcgtc atgcccattg agaagatgca gattttcttt ctggttctct agattggtct 120
tgataaagct ttcatacagg atgcagctta agctggagtt cgtcgctaag caggaaacat 180
ggctatcaat tatcttgat acagaatggt tgggactgga tcttgtaatg aaagctggag 240
cagaagaagt ccaggacgga aaattcggct tccacggcaa tgccgacgtg ctcccctcgg 300
gttctgcag ttcgaggacg gacagcccag gttctcaagc agcaaagtta gcgcacaaag 360
ttgaactttg ctgctgcacc atcgtcaaca ag 392

<210> 10967

<211> 177

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-D3

<400> 10967

gggtcacacg agatccaaat gaagaacatc agtggatgcc ctcatctggc gcaatccgtt 60

cactgagccg gcaatccatc cttccgaagc tacgatgtcc ttccaaaaaa gccaaagggcc 120
acctggttga aacccgtgga acccttttaa ggcaatttcc ttaaggactg aaaaacc 177

<210> 10968
<211> 396
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-D7

<400> 10968

ggtcgacacg ctccgggagt ttgactcgga caacgttcgc ctcgtaagc gctgccacaa 60
gcccagacca aaggagttca ccaacgtggt cattcggacg gccatcgggt ttcgtcctca 120
tggggctcct cggggtcctc cttcagcctc aacttcattc caatcaaaac aatcatctcc 180
ggttccggcg aatccctctt cccaaggtaa ggggcccag gccaaaagga tgttttcaat 240
ccatgaaggc gcccctggtt tcctaacccc cttaccttaa accaatcaat taaggattta 300
attgttaaga gaatttcctt ttgttttcca tttgaaacag ttgtattggt agacctggag 360
cagttttgaa ccttattccg gctagaccgt aatata 396

<210> 10969
<211> 271
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-E1

<400> 10969

gtcgacgctg ctccatatcg acagtcgggg aagcaatcca ccaccatcac acttgactag 60
ggtattacac cacaacggtg gccagacca gtataaacct cgtgtctttc tatgttgcca 120
gttcgtcgag tccgtccgcc agatcttacc gagctatggc gtcaatcggg aggagggaaa 180
gacttcgcgc gcacccatt gttccaagct taagggtttg ccagaatccc acatgcggca 240
acgacagaga gtactccag ggttcctatc g 271

<210> 10970
<211> 219
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-E2

<400> 10970

gtctagaact agcgggtcga cacgaagacg acagaaggggt atcttttgag tatggcttta 60
tagaatgctt catgtgcttc acttatatca tttgaacttt ggattgcctg tttctcttca 120
catataatac cggcatttgg acaatgctct tttgcgtcag ttactatctg ataaagcgtg 180
ggcatagaat ttgtatacag agtggaagtc ccttgcttc 219

<210> 10971

<211> 333

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-E3

<400> 10971

gggtcgacga agttgttaaa acaggagtga cacctgccga gaagcttctg aatctatacg 60
agacgaagtg gcagcgcagc gtggaccctg tgttcgagga gttgttatat tgatatatac 120
tgatatcata tataacttcg gtggacgctg gacaacgtgg acacggtctt cagattgtat 180
ccccatacaa aatcccgctc ccaattctac aagccacctg accagggaaa cctactctcc 240
ggctctgtgg ctgctaccaa ttttgaacgc ggaacactct gtttgtggcg ttccggccct 300
tcttttttcg gccagtgtcg acctttttaga gct 333

<210> 10972

<211> 308

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-F2

<400> 10972

gggtcgacgt cgaggcacac taaatgctaa gttttcatca tttagggttt atcgatgccg 60
aggcacccta ggttgggcct aatcacttgg cactaatcag ttggctctat tgccacctat 120
gttgggttta tcatctacgg tttatcgatg ctgaggagaa tttctaagtt gggcctaata 180
acttggctct attgccacct atggtttaata gcagcaggaa taaaggggca tttgatccta 240
cttaattaag tactaagata ccccgccct tgcatataa gcaagtaccg catatgtccg 300

atttttag

308

<210> 10973
<211> 268
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-F9

<400> 10973

ccaggtcgac gtatcacatg cgccttcggt ccaatggctg gatgacatct gtcctaacgg 60
tgagccgaca cgtgtttcct ccagccaatg atggttgtag acgtggaata tccccattgg 120
tcggggctgt taacgggtta tcggatccaa aaccgagccc gatagctgaa cgggtgtcca 180
tcacgggtgga cgccacgtgt cggtcaccct tgatgaaagc acttctatga cgcgcgattt 240
atcgtcatgg aagtggacac tttcgtga 268

<210> 10974
<211> 365
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-G4

<400> 10974

gggtcgactt tgacgatcag actacgaacg tgcaaggacg ttgcgcctta gcaatcgcta 60
aaccaactcc gagaggttat tgaccacgcc ggagcacgat caacctgacc acgagggtct 120
gtttcctgcg agcaaacgaa gaacaagcaa gaaactgaga ttgcaatctg gatattgcga 180
atataagatg aaagctttat tgatcaaggt ggggttctgt gacgcctttg tctggtcgtt 240
gaacacaaac gaagtacgcg aagttgcagc tatggcgaac ttttaatcta aacaaaaccc 300
aacgaaaagc tactagatgg atctacttac ataggactaa ggggtggcgg ccaaggaggt 360
gggag 365

<210> 10975
<211> 287
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-H10

<400> 10975

gccgacgtca atggcaaggt caactgctcc aactgcccc tctccggcgg gatgtactac 60
gcggggtttca tcccctacgt caactcatac acagagatct acatattggc caagtgttcg 120
tcgatctgca accctgttta agagctggat tggacgggtcc aattcaacac ggaactatgt 180
gtctgttgaa acgttttcgtc tatcaagtgt cgctcgcgcg cctccggaca gcccgacgac 240
gccctcgcct tcgccaagct ccaactcctcc atgaggtgat ttgtttc 287

<210> 10976

<211> 299

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-H11

<400> 10976

gggtcgacgc tacacctgat gctcagcact ccgcagcggc accaggggag gctacctaaa 60
cgtggacca aatctcctgc agctcgcgt caggtacagc gagaagaaga tggctcgccg 120
caagtgtac gctcggcttc ccctgaggtc aagcaagtgc cgcaagaaga agtgtggcca 180
cagcatccag atgatgcca acaggaggtt catcaacaag ctttcgaact tgacatcgaa 240
tcggtagggg agagagaagg gaaggaccgt ctgtgactaa attgtttcat tcggtttag 299

<210> 10977

<211> 300

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-H2

<400> 10977

ggtggccgcc gcgaagaaaa tgagcttata atggcttcaa aacgtatcct gaaggaactg 60
aaggacttgc agaaagatcc tccgacatca tgcagtgcag gtccttctgg tgaggatatg 120
ttccattggc aggcaaccat tatgggtcct cctgatagtc cctatgctgg aggtgttttc 180
ttagtgaata tccatttccc cccggactag cccttcaagc cgccgaaggt atcgttcaag 240
acaaaggtct tccatccgaa catcaatagc aatggaagca tatgccttga cattctgaag 300

<210> 10978

<211> 322
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-027-Q1-E1-H4

 <400> 10978

 ggggtcgacat cacttggttcg aacacttgtc acaacattat cgtacatgtc cttgatgagg 60
 gtaatgtact ttgctgggat tttgtgtttc tccaaggccc accacatgac attccgctat 120
 atcttaccat aggccttctc caagtcaatg aacaccatat gcaagtcctt cttttgctcc 180
 ctatatctct ccataagctg tcgtaccaag aaaatggctt ccatgggtga cctcccaggc 240
 atgaaaccaa actgggttttt ggtcacgctt gtcattcttc ttaagcgggtg ctcaatgact 300
 ctctcccata acttcattgt at 322

<210> 10979
 <211> 347
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-027-Q1-E1-H6

 <400> 10979

 ctcccgggtc gacactgaac acatgaaggc agtctgtcaa ccccaacttc tttgttgatt 60
 tcgggaccga gcctgaaggc cctccttgg cccatgagat gagatatacct ggtggagacc 120
 gcacctctga catatggatc taggaggaat ggtgtacgac acaggcacct ggagatccat 180
 ggtgttgagc tcaactgtaat taaaatggtc tcttccccgc ctgcgggtgtt gtatgtgatg 240
 tggatatcaat tggaataagt tcctgataga acccctgaca ttggcttcat gggagctttg 300
 ggccctaata agagttgcct ctgattctga aatttctgat gctgttc 347

<210> 10980
 <211> 440
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-028-Q1-E1-A12

 <400> 10980

 ctcatgggtc gacgggacac tctagagtga gtcatactag tcgaacatat aaagtttgat 60

catggttata cctcgaagag tccagcaatt gtcaatctac ttgagatcat gacggaattt 120
 actccggagc aacaacatgc attctgccag tttgtgactg gtgctcctcg gcttccacct 180
 ggtggccttag cctccctaaa tcctaagctg actatagtta ggaagcactc ttcgactgcg 240
 gcgaatactt caaatgcagc tggagcagca gagtctgcag atgatgatct gcctagtgtc 300
 atgacttgtg ccaactatct taaacttccg ccatactcga caaaggaggt tatgcacaag 360
 aagctgcttt atgctatcaa cgaatgccaa aggtcgtttg atctttcata gtgggttcaa 420
 aactaacata catgcaccag 440

<210> 10981
 <211> 429
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-A2

<400> 10981

gtcaacaggg atccctatat taagtcgtgc gacagtttcc gttgggggat gatgacacca 60
 tgtgtggcta ctcgatgcct aatctcacag aattctcttg atgaacgctc tcctactgtc 120
 agtactgctg tatcttgtgg atgctaacaa cgattttcag tacatggtac tgttgtccgg 180
 gtcaaggaag gtttacgccc agcggaccta gatgtgctgg atgttttata ctgtataaga 240
 ctacgcatca cgtgctgaat gaatgttgct gagactctag tatcgcagtg tgttgacgac 300
 gccacttgc ttgggctccc gttgttaa at ttgccacgct agctattgat aaagatgggt 360
 ttcttgttca atttggatct tgctggcggg ttaatttcat catgagagga aatatccgca 420
 tcagttttt 429

<210> 10982
 <211> 387
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-A8

<400> 10982

aacgggggtg aacggcatgg tggacaccct gaacaccaac ctcccgcgcg ccaagctcat 60
 ctacatcgac aacttcgaga tgatctccga ggtgctccgg agccccttta actacggctt 120

cagcgtggtg gaccgcgggt gctgcgggat cggccggaac cgcggggtca tcacctgcct 180
gcccttcctc cgcccctgcc ccaaccgcaa cacctacatc ttctgggacg ccttccaccc 240
caccgagacg gtcaacgtgc tcctcggaac ggccgcatac tccggcggca ccgacctcgc 300
ctaccccatg aacatccatc agctcgccgc gtggcaaccg tagtttcttt gagtgaggaa 360
ctaagtacct atagctaact agctacg 387

<210> 10983
<211> 428
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-028-Q1-E1-A9
<400> 10983

ctcgtgggtc gacgctgcgc actatactga gtcattattag gctccagggt ggacaacact 60
gtcctaaagg caagcgggcg cgtcagtgct ggttgccgac atctagcaat gcctctgtgg 120
cgaccagaga tgtacaacga cgacaacgga ggtagagggt gcggatgcaa agtaaggggg 180
ggagtgggtg agtggaagga aatgagtccg ggaaggggat ttaatgggccc taggatgtca 240
gagtectacg tgactgttac ccggattccc gcagcccccc cccccacgt tgtctccact 300
ttgcgggaga aagtgcgtcc agaccgcttg gtggaccgac ataggcccat gttggatggc 360
acaacacgtc caaacctgtg ggtccaaacg gttgcggaga gtcggcgatt ggagatgccc 420
ttagtggtt 428

<210> 10984
<211> 337
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-028-Q1-E1-B10
<400> 10984

caccactccc tatactcagt cgtatcacgc gatcaatgag atcaatgcag ctgcaatgat 60
gacggtggct gcatacgaga atgcggacgc tgagaagatt gtccagatca aacgtgccga 120
gggtgaagca gaggccaagt acccgtctgg cctcggatc gcccgccagc gccaggccat 180
tgtggatggc ctgagggaca gcgtcctggg cttctcagtc aatgtgcctg gcaccactgc 240

aaaggatgtg actgacatgg tgctgatcac ccagtacttc gatactatga aagagattgg 300
 cgcgctcctcc aagtcctcgg ccgtgttcat cccccat 337

<210> 10985
 <211> 398
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-028-Q1-E1-B11
 <400> 10985

ggtaagggttc ccggagtcta cgacgactgg gaggagtgtt ggagacaggt tcaccgattc 60
 agcggtaata gttacaaagg gtacaccact agggccgagg ccgaatctag atacgcccgc 120
 tatctagcgg gagaggggag ggagcgttgg aggaaccgga tgaagacgag tttcatcgtg 180
 atgatgctca tcgtgatgac cgcagctctc ttctatgtga cggtagttta gatgatcgat 240
 atcgacttgt aatgtgaaga caaactcgct actcgcggtc tcgagacttg taatataatg 300
 ttctatcttt gttcgggtctt ttcaattcgg agactaatat gatgaattgt attcagagac 360
 taatcttcta ttgtattcga tgaatctggt gttgatgt 398

<210> 10986
 <211> 433
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-028-Q1-E1-B2
 <400> 10986

gcgggtcgac ataattcact agatagagtc ataatttag agaagtttgt gtgtcgcggc 60
 aaattgattt aatgaagaaa aactaaagtt taattaatat ataatatggt tacttcgcaa 120
 gcacgacaaa atcaagttga aaccaaagtc cactactatgt ataaaacatg aaaaatgggt 180
 taatttgatc ccagaaaggc acacaatgaa atcaaaatgc acgagtagac aagcatttga 240
 ttttctaaaa ttgaagcttc tattcttcta aaaacttttag agtcacacaaa gcacacacaa 300
 gacacctttg atggtgattt tttgagggtc ataaacaaat atgtcgtggt gttgtagcat 360
 gtactttgtt tggaatcttg agtgtgtaga cattttcttt taactctaag accaccggag 420
 aaagaacacc tcg 433

<210> 10987
 <211> 181
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-028-Q1-E1-B4

 <400> 10987

 ggtccaggcc cgcccacaag ataacttcga tcgcgctttc ctatttaggg tcgatagttg 60
 caccgatggg taagggtgcca ctagtgccat cctccttggc ggagaccctc gtgggtctctg 120
 gtggagctgc cagtgtcttc ttagacttgt cagtggagct ctatggttcg tcgtcgacgg 180
 t 181

<210> 10988
 <211> 374
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-028-Q1-E1-B5

 <400> 10988

 tcgtgggacg acaccataca cgatagggag tcgtattaca cggtttcttg accgatttga 60
 tccccggata tgcattgcca ttcttggttaa gttcgagtga aaacaggtgt gtgtacgtgg 120
 atttagatgg gtgttttttc gttccatcat ttctgcgcgt cgtctaggat taatttgttc 180
 tgtaagattg agatcacaga gtgcgagtag tacaaataaa tagagttctt tgagaacttg 240
 ggggacgctg agtattctcc tcaacattga taaatatctt tgtatgtgca tcaactcaatt 300
 gtcagtgagg agaatacgct gaatagcatg ctaccctagc cagaatcaat taatcaagaa 360
 tctacggttg gtac 374

<210> 10989
 <211> 355
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-028-Q1-E1-B6

 <400> 10989

 tcgcgggtca acagcacaca cgaaaatgaa tctcaataaa tgctctgacg acataacttc 60

tctgtcggcc aacatgggtga gacgctggac acacgctgaa agcgagttac atttggcgat 120
 actgctgtag gggttctcca cgcgccaata gctatctttt ggattgctga acgtcgtctg 180
 tgggtgtaatg tgaaagtttg aggccatgat ctgaggtgta attgtggggc cgtgagagga 240
 gttcagtgtg tgtgtgtgtc tcttgcgtgca ttggccacag gaacatacta cgtatttgta 300
 aatagctaag caactatggt ggatgtgcac agacattggt gaaatggctg catct 355

<210> 10990
 <211> 422
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-B8

<400> 10990

tcgtaggctg acactagacg ctatattgat tcgtatcaga gcctcaatat ccacatggat 60
 caagcaaaact ctgggaagct aacctccctg cacttccacg cttgggtccaa gggcctgaaa 120
 acagggatgt actatctgag gacacgtgct gctgccgatg cgatcaaatt cacagtggac 180
 actagtcttc tcaaggataa gaagcctgcy aatgctgagg aggaagagga tctccaggct 240
 aagatggcgc gcaggtgacc tgctccctga acaaccggga ggactgcttg tcatgtggaa 300
 gctagattca tccgcgacac cctacgctaa cctatactat cctcttactg ttggcttgct 360
 gttgggttcg atgatatatc tgtagtggta atctgcctat gcacgatgaa ctctgaatta 420
 aa 422

<210> 10991
 <211> 249
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-C1

<400> 10991

tgggtgtagt actatagtca tatatgtcta tgtctcatat tgcacctcaa gctcctgatg 60
 gtcctttcag gataactttc gtgacaaaat ttccaaacgc aactgttggt atgagcgtcg 120
 aggaagccct ggtggacatg attgactggt tcaacaagaa cctcaagtga acctaatgaa 180
 ttggcgggcca tccttttgta ataagccagt gtcactcttc atgagtcacc acgcgagcat 240

ccacagttt

249

<210> 10992
<211> 95
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-C11

<400> 10992

gggtcgactc ccctagggat ctggaaacat tggagtattt atagagcata caggcgggtcc 60

ggggggcacc cgacgttggc acaatgcact caggc 95

<210> 10993
<211> 404
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-C3

<400> 10993

cataccatat aataagtcgt tggacctaca ggaaggcatt gggaagtaat aagtagatga 60

tgggttgcta gagtgcaga agcttaaacc ctagtttatg cgttgcttcg taaggggctg 120

atttggatcc atatgtttca tgctatgggt aggtttatct taatactttt gttgtagttg 180

cggttgcttg caatacaggt taatcatatg tgggatgctt gttcaagtaa gaacaacacc 240

caagcaccgg tccaccacaca tatcaaatta tcaaagtacc gaacgcgaat catatgagcg 300

tgatgaaaac tagcttgacg atattctcat gtgtcctcgg gaccgctttt cctatcataa 360

gagtttgtcc atgcttgtcc ttttctacaa acaagattgg gcca 404

<210> 10994
<211> 443
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-C4

<400> 10994

gtccgaaact cgcgggtcga catcactggt cacacatttt actttttagg attctttcta 60

tgatgagaat agtcatatc atatgaacgt aaaaaagaag attatctcaa gcttttatatg 120

cacttggtac gaagctcggc tccagccaat ggatttcagt gcattcccta ctgtttaccc 180
 taaagtcctt caacaagata acgatattga ttgtggcatt ttcactatga aactaatggg 240
 atggtgcccc aggaatccaa cccctatagt tttttcacca aaaaatgtcc cagatgcaag 300
 gatccgatat gctgttgatc tcatgttcag ccactacaac actttggatg acgagaagaa 360
 gcgtgtcaag gagttccgcc tatagacatg aaaaagtgtc gacagctcct aaaagacacc 420
 actcacaatg acaagaggag cta 443

<210> 10995
 <211> 393
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-028-Q1-E1-C5

<400> 10995
 tcgggggttct atcctctaac tcagggtattg ctacttttgt caagatattc cctgggggttt 60
 ctcatggatg gaccgtgaga taaaaagcg aagacgcagc tgctgtgaag agcgccgagg 120
 aagccctggc ggacatgatt gactgggtca acaagaacct caagtgaacc taatgaattg 180
 gcggccatcc ttttgaata agccagtgtc actcttcagg agtcaccacg cgagcatcca 240
 cggtttatgt tatgggtctta gctatagcct atagggcatg cgtctttgtc tgctgcaggt 300
 ctgctgggat gtgtgtgctt gctcattttg gggctgtgctt gtgctgaaca ctgaaactat 360
 tgcactcaga taaaatgtgg tatttgcatg ttt 393

<210> 10996
 <211> 230
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-028-Q1-E1-C6

<400> 10996
 tggcagacat gacagtctgg cacaccaatc agcacaagta cacgtactta ataggtagac 60
 atcgctttgt agaacccccc tgacagtctt catgaatcaa cacacgatca tcaacagttg 120
 acgatatcga cgtatgcaga toccaaattg aaagcttcat cgaccgctgc aggactgctg 180
 gaatgtctga gtctgtctca tgacgtgtct gcatatgctg aacactgagt 230

<210> 10997
<211> 443
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-C7

<400> 10997

ctcgcgggtc gacacgatac actatgatga gatcatagta agttgggtgtg aagaacattc 60
gtgaatatga agaaaagcaa ctgaaagatg ctcaagcact gcaggagagg aagctaagtc 120
tgagcaatca attatcgaaa ctgaaatacc agctggaata tgaacaaaag agagatatgc 180
atgctccgat tgcaaagtta aacaacacac atgagaccct agagaaggag ctgaagggct 240
tgcaggagag agaaactcgt gctaaggctg atgctgaaca tatttcaa at cagatggaag 300
agctgaaggc tgaggctgaa gactggaagt tgaagtcaga tgaatgtgag acagcaattg 360
aggaactaaa gaaacagaat gatagtgttg ctgctgcatt ggcaaagctg gatcgccaag 420
tgaagttaaa ggaaggacag ata 443

<210> 10998
<211> 200
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-C8

<400> 10998

ctaaattgag tcatagtaca ttcaatcaag agaatagctc atgtcatatg aacgtcatat 60
tacaagatta tctcatgctt ctaaatgcac gtgcgtacta ggctcggctc cagccatgtg 120
gatttcagtg cattccgtac tcgtttaccc taaagtcatg caacattatg acgatagaga 180
ttgtggcatt ttcactaaga 200

<210> 10999
<211> 388
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-D1

<400> 10999

ggtccggaac tagcgggtcg acttccagga gatacgatga cctaccaaca ctatcgattg 60
 acgggacacc tcatccgcta gcaagtggta tcagatttcc aggttgctca gtgagatttt 120
 acagtttttc gtacctgaga ttcagtctgt tgatgggtacc tatattccag gagcaggcga 180
 ttacagaat gacggttagt tcatcccacc cgaaccaggc tgagccttgc atagtctttt 240
 ctgtacatgc tgtgctgaac tcgcggttgc accgtcatgt gcacttgctg gtcttaccgt 300
 ctattctttt caagtttcga gtcctgtgca ggagtagtca cgctgtcgcc gcaccatcag 360
 tatctcccct gtttagcgacc acaattgc 388

<210> 11000
 <211> 444
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-028-Q1-E1-D10
 <400> 11000

ggtctagaac tcacgggtcg acagggaag tgactgtgaa attctccac catgatgttg 60
 cgggtccttc gagatgatgt gcggcaaact tcaccttttc cgcacctgtg catcctgtca 120
 tggccaactc ccttctgtgc ttgcggagcc aatcatctgc tactatcggc tcggtgctac 180
 tggaaaacac cgggtgattt agcctaagaa aacgggctaa gtgatcaaca ggtgggtggg 240
 gtgggtgggg tttgttgttg ttgttcccct gattctgatt ctgggctagc aactacatca 300
 atgtgttctg ctgctggatc aactgggtga gctccggtgg gaaggtaaatt ccggggtcac 360
 gtctcgagg catctgaagg tttagaaaag atgagattta agaatagaga ggggtctaga 420
 gagaaaacac taccatattg caca 444

<210> 11001
 <211> 395
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-028-Q1-E1-D4
 <400> 11001

agcccgctgg agaggctcgg gcttttcatg aagagagaca tcgaagaaga ggtcgaagat 60
 gaaatggagg acagcgtatc accaccctcc gtggatgtcg acagcgtatc accaccctcc 120

gtggatgccc acagcatatc accaccctcc gtcgatgtca acagcatatt accacccgct 180
 gtggatatgg atattgacgg ggaggaagga gagatcggct gctgtgggta gcattttttt 240
 ccttgtgatt tgtttctcat acgtattgtg taccaacacg atcgtaacac gtggttataa 300
 ggttacgatg tgattctgcc ccgcaagcgg gctatgtcga cataagcgga gtgcaactgta 360
 actgttgtgg tattcagagt gagtttctcg aatgt 395

<210> 11002
 <211> 354
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-D6

<400> 11002

tcgcaggacg acacaacacc actataatga gtcgtagtaa gtattaaata cgcagacgca 60
 tttagtatgc aatgttgaat aattatttaa gtgatttgtt acagtacaac atgacaacgt 120
 tttgcattgg tttgtactga cctatctcac gagttcttga tgagtttgtt gtgaatgaag 180
 cttttgagaa gtagagaacc catgatatga cacgaattat ggagacacac aagctcaagc 240
 ttggggaatc ccaagtcgcc ccaagataat atttactaa gtcgcaggca tcaaagcgtg 300
 gggatgcccc ggtaagtatc ccacctttct tctcagcaa ctatcggtta ctac 354

<210> 11003
 <211> 438
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-D7

<400> 11003

tcgtaggtcg acgctaaacg ctaaactgat tcatattatt ggaggcattg acaagcgtgt 60
 gatcgagagg ttcgagaagg aagccgctga aatgaacaag aggtctttca agtacgcctg 120
 ggtgcttgac aagctcaagg ccgagcgtga gaggggtaac accattgata ttgccctctg 180
 gaagtctgag accaccaagt actactgcac cgtcattgat gccctgggc accgtgactt 240
 catcaagaac atgatcaccg gtacctccca ggctgactgt gctgttctca tcatcgactc 300
 caccactggg ggttttgagg ctggtatctc caaggatggc cagacacgtg agcacgctct 360

ccttgctttc actcttggag tgaagcagat ggtctgctgc tgcaacaaga tggacgccac 420
cactcccaag tactcaaa 438

<210> 11004
<211> 303
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-D8

<400> 11004

gcgggtcgac gctacaccct aacgtgattc ataggactta agggaaggac ctgcgtgtta 60
tcgattcgta caagaatgaa tacgttgatg aaatcatcaa ggctttcata taccctctct 120
tccttgggga tcacagcgca tcacgttcta ccgagtaatc gttaggtata accctatgct 180
tcttccatat caccagatta ttatgaacca tcgttgacat caatggacac cgttacttca 240
gatggatcag catcagcggc agtccatcat cagagtgtgc tgtgcgagc agagactcca 300
gtt 303

<210> 11005
<211> 408
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-D9

<400> 11005

ctcgtgggtc gacgagattg tcaacattga gtccttatat ctacacaata tgttcccctt 60
tgagagggtc atgggagtc taaagaaata tgtccgtaac cgtgctaggc tagaaggaag 120
catctccatg ggccatcaaa aagaggatgt tatcggtttt tatgttgact tcattcctgg 180
ccttaagaag ataggtctcc caaaatcgtg gtatcagggg agactgactg gaaaaggcac 240
tcttggaagt gactcaataa tatgcaggga cggatattct tgggtctcaag cacactacac 300
agttctacag aactctacct tgggtgacccc gtatgtcgat gaacacaaga acagtctgcg 360
ctccaaacac ccggagcagt gcgacgactg gattacatgt gaacacat 408

<210> 11006
<211> 57
<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-E3

<400> 11006

tatgttatcc acaccataaa tacgtcaaac actttcgcgt ttgcgctaac tgcaagt 57

<210> 11007

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-E4

<400> 11007

gggtcgaccc tagccatcat ggtaactctt atcacagtag tatcatatgt gggctttctt 60

tagttgcac tgctctgagt gctgcggcat catctggaga aagggtcagt accactattg 120

taggccttgg ggccgggagt ttaccaatgt ttcttcgtgg atgcctccct catcttgata 180

ttgagqttgt tgagttggac cccgtgatgg aggaggtcgc gacgaaatat tttggctttt 240

caatggatga gcaattgaac gtgcatttgg gggattgaat caaattcatt gaagaagatg 300

cccattcgtg acgaaatggc aaagacagcg atgcagttac aattcctagt gttgatgttg 360

attcatctga tctaagttct gggttgtctt gccccccagc aaactttgtc gaagatgctt 420

tc 422

<210> 11008

<211> 372

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-E6

<400> 11008

ctcgcaggac gacacgagac cctaaaatgg gtcatagtac atcgatcaat acaccacaga 60

gcggtgtgcc acgatggaca tccagtatgg attgtctgtg aaccgttgca caggaccata 120

gtttgcgtga aaaatcatgc gcagaatagg tgcgagatac gacatatggg gatattcttc 180

gagcaattct gacgcatcag ggaatggcgc accttaatat gccacagctt gtttactgta 240

tgagaagcgc ccaaaccttt cctcaatgtc tcaacaatga ccagtcaatg aaaatgagac 300

ggctgtttta aaataccagt ctggaactaa gtcggggcca caagatctgg caataacacc 360
tctaaacaat tt 372

<210> 11009
<211> 434
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-E7

<400> 11009

ctcgcgggtc gacatcaatc actacaatga ctctaacac atcgaaagac gggacacctt 60
tgcctctatg atgaggacat gactaccttg gatacgatca aaaatattgc ttacatgcat 120
atgtgtcagg tgattttctag tgcaaactac tcaataatct atttatgtta tccagaacaa 180
aaataacttca cacacttttg tgttttgtct aattgcagggt gtatgggata tttgtacaat 240
ccacatatga agataaggca aaaggagaag tttaggttct gttcaaaaag tcctctcacg 300
taacttttgg gccaaagagaa gatagagtcc aagtctctca cgttctggat tcagattcgg 360
actgcacaga catacctgac tcaaaacgcc aacaactttt tcatacggac tccgaattgg 420
gtgattcctt ttg 434

<210> 11010
<211> 264
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-E8

<400> 11010

gggtcgacgt actcctttca ggcctgagga gatggacatg gggactattg ctatcgcgtc 60
cagatacgct ctcccagtga gagccgcact gccgtgaagt agttctcact aaccaatgta 120
agcctttgag acagtagttt agcaatgtat ccacgccaac tttcctaaca gctagacaga 180
tacgtgttcc atttgggtcc cgtacatcaa gatgtccagt gcactcaaga cggcatcgta 240
acgcatcatc agtttacaag tgat 264

<210> 11011
<211> 424
<212> DNA

tgtgggtgga gttgctaaag tttcgagaga tttcagtttt gaggttgccc tacaatatat 300
 tttcttgtca aaaaaaactg atgtttagag cggtgcatac taaagtcatt gcattccggg 360
 a 361

<210> 11014
 <211> 437
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-028-Q1-E1-F5
 <400> 11014

cgcggtcgga ccttgaacct ttgtgctcat gcccatggac ctgatgacag acttatcatg 60
 gaagctgctc ataaaaatat ttatttcttt ggtataagct catcttgtat ctatgaattg 120
 gtcctttgca accgtggctc tgaccatgat tgttccatt tgattccatt tctcggacaa 180
 gttaaagcac ttgtcttcta cagaacaatg catctcctca acctctatct tgatattcct 240
 tcgagtatta cccctgggtat ctcgaggata tcatgccatt gcactacatc ttatgaactt 300
 ttgatgaagc actacctttc cctgtcattg tcacttcacg ggttctgtct tgtttatcaa 360
 tcgagagcac cgataagtga atcgattcca cagtccgatt caataactcc aagtaagttt 420
 tgttgccctat gaggttta 437

<210> 11015
 <211> 422
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-028-Q1-E1-F6
 <400> 11015

ctcgcggtgc gacatcaaac catatgcgca tgtcaagcag gcgatgaatg agatcaatgc 60
 agctgcaagg atgagggtgg ctgcaaacga taaggcggaa gctgagaaga ttgtccagat 120
 caggcgtgcc gatggtgaag cagaggccaa gtacctgtct ggctcggta tcgcccggca 180
 gcgccaggcc attgtggatg gcctgaggga cagcgtcctg agcttctcag tcaatgtgcc 240
 tggcaccact gcaaatgacg tgatggacat ggtgctgac acccagtact ttgatactat 300
 gaaagagatt ggcggtcct ccaagtcctc tgcggtgttc atcccccatg gccctgggtgc 360

ggtagcgac atcgccacgc agatccgtga cgggtcttctt caaggccagt ctgcctctga 420
ca 422

<210> 11016
<211> 393
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-F7

<400> 11016

tcgtaggtcg acacgacacc ctaaaatgag tcgtaggaga ccatggaaag gtgtccaagg 60
acaacgagga gcaggcagag ttcaagaaga tggttgatcg tattgaacag tacaacctga 120
ttggtcacat ccgctggatc tctgctcaga tgaaccgtgt tcgcaatggt gagctctacc 180
gctacatctg cgacatgaag ggagcctttg tgcagcctgc tttctatgac gctttcggtc 240
ttaccgtgat agaggccatg acatgtggcc ttccaacatt cgccactgca tatggtgggtc 300
cagctgagat cattgtcaac ggcgtgtccg gctaccacat cgatccttac cataatgaca 360
aggcctccgc actgctcgtg gacttctttg gga 393

<210> 11017
<211> 434
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-F8

<400> 11017

tcgcgggtcg acagtaatcc ctaaaatgag tcatagtaat gtcgaccatc ctattgacga 60
tcttataatt catctgctaa ctgacatatt ttaaccatat aatttctggt gactggaaat 120
ctaaaactga agatagggca gattgttttg attatgatta cttggagatc tcgtggcttg 180
ctgtccatgg atcagtcata cctacggcaa catcaactca ttgattctag aggccatggt 240
tctcgagggtg aactctgaat cgctgatgca attgcagtgg aggctagagc ctgccaaagt 300
atgcagtaga tcaaaccata taatgcaact gacttctcac atgacttatt tctctctgta 360
aaacttcttt ctcatccatg taatctctgc acatctcaaa tctccgtccg ccttaacctt 420
gattttggca cata 434

<210> 11018
 <211> 286
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-028-Q1-E1-G10

 <400> 11018

 caataactcta taatgagtcc tatcattcgg cttcaccacag tccgaggtag acatccggct 60
 gaccgcggcag taacaatcgc agagggtgctc cccttatgcc ctagccgaat taacgggaac 120
 gtatggcata aatacaagag ctaggcaacc catcttggcc aaaacttaag tcatatcgat 180
 gcatataatg gcgaagaaaa tgtacatgcg gaggaataac acatgtgcgg ggcatgaagc 240
 ccagatagat aattaagctt ctgtgtaaga agcccccagg tacaat 286

<210> 11019
 <211> 425
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-028-Q1-E1-G11

 <400> 11019

 ctcgtagggc gacgccatcc actagactga gtcgtagtag gtgctgtacg gcaaccacga 60
 gatcacggc ggcacccgagc tgaggccgct gcagggtggc aaccagccca cgggtgcacat 120
 cacaggaaga gcgggatcat tctacacgct cgtgagtgc cattcttaa gttgtatcat 180
 tgattgcata tatcaatata agaatttgca attgctaaca ccaaggagtg gtcttttagtg 240
 gtctactgat acggaccttc ttaatttggt actacgtgat ggtagacca gatgtgccta 300
 ggccaagcga cccttgcgaa cgggagtacc tccattggta tgtgctaaat taagatagct 360
 ttaccttagc cacttccctt acgcgtgcac tttgtgggcg aattaacctt ctcaaaataa 420
 catgt 425

<210> 11020
 <211> 415
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-028-Q1-E1-G4

<400> 11020

gggtcgacag agctcggtat ctctctctct ctactctat gtgtgtgtgt gtgtacatgc 60
gtactcgagg tgagtcgtga ataatatcgc agggcaagat ggctcttacg tcgtacacca 120
tgaagaatag tgtgtatccg gtcgtgcgat tgggcatggg acgcagcccc tagagtacgg 180
agtcgagctc ctgcacccag tgtttatctg agtcctttaa ggatcgact agtctagggt 240
taatgtact cattatcaag ctgttatccc attcgacttg accatttggt tgaggggtgat 300
agacgggggc ataataaagc ttgatgcccc gattagcaca ccaagttttt acctcatcag 360
ctgtgaagtt agagccatta tcggtaatga tgctgtgtgg gacaccgtaa tgggtg 415

<210> 11021

<211> 199

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-G5

<400> 11021

tcgcggggtcg acaactatac atcaggtggg ccatacggg acgtgggggtg tttgcttctg 60
tatttcttcc atttacgttt tggtgtccgc acgccaacct gtatggtaga tctatcttca 120
gcattgttgt gggtagctgt atttgcttcc agtgatttag ccgtgtagca gcagaatgtc 180
gttacgcttt cctttcatc 199

<210> 11022

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-G6

<400> 11022

ctgcggggtc gacgacatcc ccagactaa atcttaggat ggtctcctca gttagctcac 60
ggctcatctt cgactgagt tcgccatcaa ggacttgggt cctttgcaact acttctcggg 120
tggtgaggtg gtgcgccgtc tacatggctt ctctctacat cagcggaagt acgtcatga 180
gctcttggag cagccggca tgcttaactg caagcccgcc gctacgcctg ttgatatgaa 240
ggccaagctt tctgccacga atggttctcc tgcttcggat gctgttttct atcggctctat 300

cattggtgct ctccagtacc tcaactctgac tcgactggag atctagtacg ccgtgaagca 360
 tgtgtgtctt catatgcatg ctctctgaga cggttcaactgg gctgccgtca agcgggttct 420
 ccgctatatc tgtggcacta 440

<210> 11023
 <211> 430
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-028-Q1-E1-G9
 <400> 11023

ctcatgggtc gacgacaatc tctaaagtga atcgtgtgac agatctcagt atacagctct 60
 atgcagaacg cattttcaaa tatgccgagt gcagtccatc ttgctttgtg ttggcacttg 120
 tctacatgga gagatatcta cagcagccaa atgtgtacat gacgctcttc agcgttcac 180
 gcttgctaata tacaagtgtg gtggttgctg ccaaattcac agatgatgcg tttttcaaca 240
 atgcattcta tgccagagtg ggaggaatca gcacaatcga gatgaatcgg cttgaactgg 300
 atttgttgtt taatctggac ttcaggctga aagtgaacct acggacattc cgggagctac 360
 tgctgcacc tggagaaaca tgcaccggtg ttcacagaga aactggctgt tcaggttcat 420
 tgtgtccgtg 430

<210> 11024
 <211> 428
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-028-Q1-E1-H11
 <400> 11024

ctcgtgggtc gacgcaaac actaaagga gtcgtagcaa gaagaccaca gaagggggga 60
 cagcttgcaa ggaggggacg cacgtctgga ccatcccgcg agccatggcg gcattgttcg 120
 acaagatcga gaagctgaag aatcaagtgg acttccagct acgcgtttct ttcacgaga 180
 tctgaaaga agaggtgcgg gatttgcttg accctgctac tgttactgct ggcaaagttg 240
 agaatggcaa tgggcacacc gggaagttat ccgtgcccgc gaaacctccg gtgcagattc 300
 gggaggggtc aaacggggtc ataacctgt cggggctgac tatgaaggca tcggtggcga 360

ctttgtcaat cttcggatga agtgccgggt cagtcgtccg gatgtgctta tagggatagg 420
gggtgcgt 428

<210> 11025
<211> 394
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-A10

<400> 11025

ctggtccgca tccacgcgct gctcgggtgc accagggtcac cggcacaact cttcatgccc 60
aggtcgttca acattttctt ctgcttttgg tgcagtcaca ttttagagtgt ttgtttccca 120
ttttactgtg ttttcatggt aagatgttag gttggatttg aagggttcata tacttggctc 180
caaagcatca atctcttgta gaaattagaa ctgagggcct tttaaaatga gtcttgcata 240
atagtgttgt tcagtgggat gcagaatttt tgtttgtact gattttacgta ctgatttcat 300
catcatatga ctacaatgaa gaagctgtgt gtataaatat tactaacgga tgatactttg 360
catcagtgat tttacaccag acgggttcagg gaaa 394

<210> 11026
<211> 369
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-A3

<400> 11026

tgactttcca tgatactatt acacgcatgc tccacaacta atatagaaga tgcattttcca 60
tcccatctag taggtgctga ctcgatgcaa acaaattaaa taaaattagt aggtgttgac 120
tgctcacaca ccatatatgt tgaacgatgc tagctgatgt accaatgtga tgttgcttgc 180
ttgattgatg actggttgtc attaactaga aaaaagaata agaaaacctt gtcaatttat 240
ttgaggagaa tccttatccc attcattaga caaccattac tactacttgt atttgcattg 300
ttgcttgctt gcttgcttgt agcactatca agtgtgggga aatccagtac taggatgtgt 360
ggaactggg 369

<210> 11027

<211> 407
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-029-Q1-E1-A4

<400> 11027

```

gggtccaggc tccttgcgaa gaagactgca gacaaacgca ttttccttgc agtttttagtt 60
gctacgcaag atcgaacggt cgctgtcagt gtcaaaaccg gcggatctcg ggtaggggtgt 120
cctgaactgt gcgtctaagg cggatggtaa caggaggcat gggacacaat gtttaccag 180
gtttgggccc tcttgatgga ggtaataccc tacgtcctgc ttgattgttc ttgatgatat 240
gatattacaa gagttgatct accacgagat caaagaggct aaaccctaca agctagccta 300
tggtatgatt gtatgttgtc ctacgaacta aaaccctcag gtttatatan acaccggang 360
gggctagggt tacacatggt cggttacaga ggatgagata tacatat 407
  
```

<210> 11028
 <211> 366
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-A5

<400> 11028

```

atgggtcctg cggttgacag cccacagta tcttcattgt tgtgattccg gtaggcggac 60
ctatcccccc tgattcaccg cggcttgatt gttgaataag gagcttagtt agttagtact 120
gtaagaagct cttgctaaga gctgagggca ggagaaaaaa gagaaggggg tggctgttga 180
aaatgacttt ttaagcagtc cagtacctcc tctttggccc atttctaata ttatctcaaa 240
tggtgttgtt gctgatactg tggtcagtggt ggctggttgg tgctgcgaca aactgtgtta 300
tatatatata tcataaattg tggtcaagaa ataaagcagg tatgggttga tgggtgggat 360
cgtact 366
  
```

<210> 11029
 <211> 393
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-A6

<400> 11029

ttcgcgcgtc gaccgaagaa gagcgaggag acgtacaaga tctacatctt caaggtgctg 60
aagcaggtgc accccgacat cggcatctcc tccaaggcca tgtccatcat gaactccttc 120
atcaacgaca tctttgagaa gctcgccggc gagtccgcca agctcgcccg ctacaacaag 180
aagcccacca tcacgtccag ggagatccag acctccgtcc gcctcgctct ccccggcgag 240
ctcgccaagc acgccgtctc tgagggcacc aatgctgtca ccaagttcac ctccgcttag 300
atagtatgtt ccctgttgtc caagtggatc gatgtttgct ctgtaagtag ctgttcgtac 360
catgtcatct tataagttgt gtgggaacac aca 393

<210> 11030

<211> 422

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-A7

<400> 11030

cgcgatgatcc acaactaata tacatgatgc atttcgatcc catcgagtag gtgctgacac 60
gatgcacgca cattaaataa aattactatg tgttgactgc tcacacacca tatatgttga 120
acgatgctat ctgatgtacc aatgtgatgt tgcttgcttg attgatgact ggttgtcatt 180
aactagaaaa aagaataaga aaaccttgct aatttatttg aggagaatcc ttatcccatt 240
cattagacaa ccattactac tacttgtatt tgcattgttg cttgcatgct tgcttgtagc 300
actatcaagt gtggggaaat ccactactaa gatgtgtgga gctgggacgc tgttgatca 360
ttaacacttg tagcactaac aagtttgtac tgattgcaga tagaaaaccc tgtgattttt 420
tc 422

<210> 11031

<211> 244

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-A8

<400> 11031

tcacatcgaa agatcgggac cctcgctct atcaagtgg atcacatttc caggttgctc 60

ggtgagattt tacagttttt cgtgacttag atcgagtctg ttctgcagac cgatacatcg 120
 acgaaaggga cacactgtat tagggtgatt gcacctctt gaaggcagtc tgagcctagc 180
 atcagcttga ctgtacttgc tgagatgaaa ttgcagtagc agctccatca ccagatgctg 240
 gtcg 244

<210> 11032
 <211> 391
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-029-Q1-E1-A9
 <400> 11032

tgagtcgtat aagcattggg atttctgaag actttcatga agactttgaa agtgaagata 60
 ttgggtgtgc cgtgacgact tgatattcat gacaggaata tcaagcttga agactttcgt 120
 tttcatagtt ttgtttttct ctttcttgag tcagatgaaa caccgtactg ttaaaggggg 180
 tcaaggaaat actaaggaaa aatttccatg tgatgctcaa ctcaaaatcc tacgtctacc 240
 aatcccttcg agtgaagcca ttggaaatct catacagttc agtcaatttc atcagtgata 300
 gagacgaagt tcttctgggc tctgaggaat ttgtcctgac tgacgagtta cgaattcgcc 360
 agtgcggtt gcctacaaag ttacgaacat g 391

<210> 11033
 <211> 392
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-029-Q1-E1-B1
 <400> 11033

gggtcgacgg tctgtatgac ttaacaaaaa atgaagatct ttggagaatg gtttgccgta 60
 atgcatgggg tagtgagact actcgagctc ttgagacagt gcctgctgag aaaagattgg 120
 gctgggggtc gctggccaga gaactaacca ccctggaagc tgttgcctgg aggaaattga 180
 ctgttgagg tgagtgagg ccatctcgat gcaacttcag tgcttggtgt gtagggaatc 240
 gtgtcgttct ctttggcggg gaaggtgtta acatgcaacc gatgaatgac acgtttgtgt 300
 tggatttgaa tgctagcaat ccggagtggg gacatgtcaa tgtaagctca gctcctccgg 360

gccgctgggg ccatacacta tcgtgcctaa at

392

<210> 11034

<211> 450

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-B10

<400> 11034

tgacggctcct aaattcacgg gtccacggtg cattgctgac ggaccatctt ctctcatcaa 60
gcgaggatga tgatgatgcc gaggacctga gctgttgctt gatcatctat tgttgctgga 120
ttctttcaac cctcttggtt tggaaatcct tggctgtcca gtagaacaaa atgcttgtag 180
attttgtagg gatggtgtgt attgcagtat ttagcattta gcttaacaaa atgcttgtag 240
attttgtagg gatacttgat ttgtgggata cttgatcttg caactgtgac ttgactaata 300
gagtagaaaa tatcttatta acgaggagag acaggcagca gcacgacgag gattaagggg 360
agtagcagca gtagcatgac tctgcataga agtggtttcg aaaaagctcg aacagcaatg 420
agcttgtttt atttctgat aaggctatat 450

<210> 11035

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-B11

<400> 11035

gggtccacga taatcgcgaa attgagtctg ctcatgatat ggtcagggtgc cagatgaact 60
tcaagcgtct ttcgctgacc gacatcaaga ttgacatcaa gcgtatccct aagaaggcaa 120
ctttgatcaa ggccatggag gaagcagatg tgaaaaccaa atgggagAAC agctcatggg 180
gtaagaagct tgttgtccag aagagaagag catcgctgaa tgactttgac aggttcaagg 240
tcatgttggc taagattaag aggggtggtg ctatcaggca agagcttgcc aagctcaagg 300
aggttgctgc ttagaatatc ctagtggtatg gcatgttgag ttttttgttc caagttggat 360
ctgctctatg ttccagtgtt cttaaagcca gaattagtac aactgttttc agcgaactat 420
ttcatatttt gt 432

<210> 11036
 <211> 394
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-029-Q1-E1-B12

 <400> 11036

 atatgagtcg tataatcgaa gcatcgggac cctcgctct atcaagtgg atcagagcca 60
 gggttgctcg tgagaatttc cagttttcct agattagatt tattttctta cctattgtcc 120
 aggaaaaagc cacaaataag agttagatct agtcatcctt ggtccaagcc agtctgagcc 180
 tttgcaattt tcttttcatt gcttgcatag ttgaattatc gggtgcatcg tcgtgtcaag 240
 ttgctagtct tagtgtctag ttcgtttaga gtttcgagtt ctattcacat tagtcacgcg 300
 accgctgcat cattatctct tctgctgtcc aacacgcac catcaatttc caccacgtgc 360
 taccaccat tcattgtcat aacaatagtt gaga 394

<210> 11037
 <211> 432
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-029-Q1-E1-B2

 <400> 11037

 cgggtccact tatacctcga gaagtgtacg tcgaatgaca tcacctataa ctgattttgc 60
 ccgttttgcc tccctgggta gtgggttcta atttctcccg ctctgggcct ttctttatct 120
 gtttttttat gtctgagttg tttgtttggt tgtattttta ccaaaaggga aaagaaacta 180
 cacatgaagc ccatctgtac caaataaaat gacgagaaat cctttcggtc cttgtttctt 240
 ctacattctt cttctttttg tcagaatgag cctcaattaa aaaaattgca cgcacaagtc 300
 ggcttggtct atgtgtgtgc gcattttggt tagatttggg ttcaattggt gaaacaatca 360
 gctccgttca tcagttataa canaaacata ggttctcgga acccgacggc ggctacttaa 420
 naaacgatc ac 432

<210> 11038

<211> 413
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-029-Q1-E1-B3

 <400> 11038

 ggctaatacct acatgatgcc cgcattgcgtc aatatagttg aagcttcgct gaagactcca 60
 acagacaggc cggcccactt aatgggttatt cagcttcata tctttttctt ttttagtatt 120
 ttgttttcag atcttggttt ttcttcgagt ttgtttgcac acttttttat acgttttgca 180
 ataagcggta aacaattttt cagtcacaca ttgaattcat ttattataca atgatttttt 240
 aatagacgct caacattttat ttataatata caatgaacaa ttttggtata tgcactgaac 300
 agtttaaata tacaacgaac tttttaaatt acatgatttt aatatacaat ataaaattat 360
 aatataaaat gaactttttt ataaaacaaa taccaaattt tttctaaagt ata 413

<210> 11039
 <211> 408
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-029-Q1-E1-B4

 <400> 11039

 ggggccacga atctttggat atggtgattc atgaaaccca tggatatgatg tgtaaacaca 60
 gccccccctc gcgaatggaa gttgcatagc acaataatca tcgccggtga tatgatcgat 120
 gattggttgg atgatcggat aattgagcgc gaggaacaag gagtgggttc caaggctgta 180
 aaccgcctc cagttgaata cgcctggccc aacgaagcta ggatctttct cgaacacaaa 240
 gcatccatag ccatcaatgt cacaacgcc ccatgcattg tactgcatct ggtttgatgc 300
 aatggtttgg tcaatttggg acgtgcgaat gagcatgaaa tgaccgccgt cagctgaaca 360
 agcgataaaa cacaacccat cggctggtat gattccaggc cctggaat 408

<210> 11040
 <211> 427
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-029-Q1-E1-B5

<400> 11040

cataacaccc taaagagagt catatcatcc atgctacaca cattataggc ggttcccaaa 60
cagaatggta aagtttatac tccccctcca ccaaaaagca tcaatccatg gcttgctcga 120
aacaacgagt ggctccaact aacaagagtc ccatggggag ttttgtttgc aattattttg 180
atttagtttg cataaagcat gggactgggc atcccgggtga ccagccattt ttctcgtgaa 240
tgaggagcgg agtccactcc tcttgagaat aaccgccta acatggaaga tacagacagc 300
cctagttgat acatgagcta ttcgagcata caaaatagga tatttatttg aaggtttaga 360
gtttggcaca tacaaattta cttggaacga cgggtagata ccgtatttag gtaggtatag 420
tggaactc 427

<210> 11041

<211> 361

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-B9

<400> 11041

gggtccacgc catacactaa attgagtcgt tgtatgggat agcttgggat tcggaattca 60
gcagctctta cctcaaaagt tcacatgacc gacttacacg ttcatttcga acacttcggc 120
acgaccgcac aagcgccatt ggataatgcc aatcgtgaga gcatgatcac tcaggttcgc 180
agctgccaac agtctatcat gtcactgcc ctgtctgcta cgtgatcact catctcgac 240
gcagtcgctg cgacggctct gctgatagtg tcatggatga cagcccgtac tctaattgta 300
acgatgactt cagtaatttg cgagcaggta attatgcgga taacactagt caggtgacca 360
c 361

<210> 11042

<211> 385

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-C1

<400> 11042

gggtccagtt tgacgatctg actaagaacg tgcgaggacg tcgcgcctta acaatcgcta 60

aaccaactcc gagaggttat tgaccacgcc ggagcatgat caacctgacc acgagggctct 120
 gtttcctgca agcaaacgaa gaacaagcaa gaaactaaga ttgcaatcta gatattgcga 180
 atataagatg aaagctttat tgatcaaggt gtgggttctgt gacgcctttg tctggtcggt 240
 gaacacaaac gaagtacgcg aaatttatga agtggcatct tgtatatattt gtccaaggct 300
 tcatgcaccc attatgggtg cttcaaagcc cctactgcta catatacggg accaattact 360
 agagtccagt aattgttgca ttggt 385

<210> 11043
 <211> 400
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-029-Q1-E1-C10

<400> 11043

gggtccacgc tactcactat aatcagtggt gatacatcag tacagttctt aagatggagc 60
 ggtgacattt ggcgacggcg gcctctgaaa gcacaccgga ccagtgtgtg ccccaaacc 120
 gcaagtggct aggttgggggt ctcaagtctt agatgttagg cttggctgcg aggtctgtgt 180
 tattaggccc ggactatcag catcccttca tcaactggat angagtagcg atagatgttg 240
 cctagacggt ggcttcagac ttactgttgt atttctttgt aaggactttt gtgaataatt 300
 aataaaatgg ctgcatgcat cgtccaaatg cagaggccgg gggctcttct ccatttctaa 360
 aaaaaaaaaa aaataaaaaa aaaaaaaaaa cggccgctct 400

<210> 11044
 <211> 412
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-C3

<400> 11044

gtaagcacga cgacacgcag gcgcggggcca tggcgtggaa cgcggcgtgt tctcgtccc 60
 ggccggccgt gctgctcgtc cccaagggca agacctacct gctcaagtcc atcaccctct 120
 ctggcccgtg cagatccagc atcgtcttca aggtgaaggg cacgctcatc gtcctccga 180
 gcatgtcggc gtggaccgac aacgatagga ggcgctggat ctctctccag cgcacaccg 240

gcctcaccgt caatggtggc ggcaccatca ccggcaacgg tgagatctgg tggaacaact 300
 cgtgcaagac caacaaggct ctgccgtgca atggggctcc cacggccctc acgtttcacc 360
 tctgcaacaa tctaaagggtg gagaacctga aacttggtta cagccaacaa at 412

<210> 11045
 <211> 445
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-029-Q1-E1-C5
 <400> 11045

tattcgctaa aatgagtcac agtaaggaat gcagagagga caagcaaggc atccaataat 60
 tgaccgactg atatgtatgg attagactat ctggatTTTT tttggtgtta ttattattat 120
 aagtgagtgt agtactttgt ttgaggagat agaagacaag gtggacaaat catgctgtct 180
 ccggcctgaa tatcttatcg catgttcgca caccaaata ctcagcattt ttttatatat 240
 ttttcgcaat gaaccaaaga atcagcatca gttatggaga cacttctaga aaattataag 300
 cacgatgtta tagaaaccgg acgctctctc gcattggata gaggctaggc gagagtcaac 360
 ttgtaggagc tgatattcaa atacaccac acgtccgtcc aactagtata tacaagctga 420
 atatactttg tccccttcga agaaa 445

<210> 11046
 <211> 446
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-029-Q1-E1-C6
 <400> 11046

cgcgggtcga cgcagagcta tatactttgg ctgaatatga tcctttccat ggttatgaaa 60
 ctgaaactgt tgtggcacat cttactaagt tgaatgatag agccaccctt ttttactcat 120
 gataagaaaa ctcgctatta ctttatctaa aattatttcc tttctcatta atgggtgatg 180
 ctaaagcttg gtacaatact cttactcctg gttgtgtgcg tagtccccgg gatgtgattt 240
 attacttctc taaaaaatag tttcctgctc ataagaaaca agcttccttg catgaaatat 300
 ttaactttgt tcagactaaa gaagagagtc tcccacaagc ttgggggaag gctccgcagt 360

tacttaatgc tttgcctgat catcctctta ggaaaaatga aatacttgat accttctata 420
atggactaac cgatgcttct aggtac 446

<210> 11047
<211> 441
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-C7

<400> 11047

tccacaacta ccgcgcaagt ggtgcctgaa agcacgacga cacgcaggcg ctggccaggg 60
cgtggaacgc ggogtgttcc tcgtcccggc cggcogtgct gctcgtcccc aagggcaaga 120
cctacctgct caagtccatc accctctctg gcccgctgcag atccagcatc gtcttcaagg 180
tgaagggcac gctcatcgct cctccgagca tgctcggcgtg gaccgacaac gataggaggg 240
gctggatctt cctccagcgc atcacggcc tcaccgtcaa tgggtggcggc accatcagcg 300
gcaacggtga gatctggtgg aacaactcgt gcaagaccaa caaggctctg ccgtgcaagg 360
gggctccac ggccctcacg tttcacctct gcaacaatct aaaggtggag aacctgaaac 420
ttgtaaacag ccaacaaatc c 441

<210> 11048
<211> 432
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-C9

<400> 11048

gtatacccta aagtgagacg aaataagagt tttccttttt ttattatctg tcaatgaata 60
ttctaattggg aatggaatth cataatactg aaagagaaga gctagcaatt cggaacgcaa 120
attgcgtttt aatacgtctc actattctaa ttttttagaa gaaatggcct ttattatttc 180
ttttttatgg ggttaataaa tattaatcaa atttaattta agaaatgaga gaattcagaa 240
tagctacgag aaagactagt ccaatccata atgatgtacc agaaaatata acatttttat 300
tatttgacca accatcagga gaagcaaata caaggggtac actaattacg aagactgagg 360
aagtcgcaat taatgcaaaa acagctaatt tggaaggcat aatcaaaatt ccaaaccctc 420

aaagctacca tc

432

<210> 11049
<211> 431
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-D12

<400> 11049

gtccacgcaa gacgctaaag tgagtcgtac tagacatgta taacaaatat atttcaacca 60
acaaaatcac cactcaatat accttaccat gccataccgg acgtaaccgt cccgacgggtg 120
accggcgata agctcacgcc tacccaaggc agaggctttt cacggatttc tttccggtat 180
gcatgcaagg cacatgatga tgattaccat caccagtata ctcatttcca acagcaagga 240
aatcactaat atgcattcat gcaaatgatc atatcacaat gacaataaca agttctcccg 300
atataaagtg gtgttataaa cgtttcaacc aacacatcaa aaatattatt ccgttgttca 360
gaatgcattc ctttaacggg gttgaaaagt gggggtgacc cccaatattt ccgaaagctt 420
ccttctcccc c 431

<210> 11050
<211> 404
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-029-Q1-E1-D2

<400> 11050

cgggtccaca cgatgatatc aactgccact acatctgacc cagaggtgaa atcgcttctg 60
agcagcaccg ccgatgtctg gatgcccgtc atcaccgcgt ctgctgatga aaggcggggg 120
tttgccgaaa caagcgggtga caaggaagag caagagaaat ctaagtaaata agcttggact 180
gaagcccttg tactcctttg tgccagcctt gttctgcatt ttccttgcat gagtatatgt 240
tcatacctgt gtgtatcaag tgttcttttg ggcaataaca gaaaatanaa nacatgttgt 300
tcatgtactt gctattctaa tttgtgtgat ggttgaggta ataaaagtct gccaaagcatt 360
gtgtcaaaaa aaaaaaaaaa aaataaaaaa aaaaaaagcg gccg 404

<210> 11051
 <211> 443
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-029-Q1-E1-D3

 <400> 11051

 ggggccacat aattcgctaa agggagtcgt attaacatct agcagcatgg cagcagacca 60
 gtttttttttc ttttctgca tgtgtttttc ttttcgtttt tactttcttt agtatggatc 120
 tatctctctg atcaagcaag aagagatcgg cagctccagc gacatgacga gccgtttccg 180
 ggtttttatg aacggaacta tttgggtct cgcggaagca aaactagcta gggtttatta 240
 gtgctgctct agttccgctt gctattcctt tcgcttgctt gtttgtttct ttaaggattt 300
 tattatcaac gttgtaaggc tggggatgtg cagctagctt cagattcaag cctgccgtct 360
 cgcctgcttg tacattggta aacagaaccg ctgggtctcca gtgaatgaat gattataagc 420
 agctactggg atgggtatttt ggg 443

<210> 11052
 <211> 182
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-029-Q1-E1-D4

 <400> 11052

 ggggccacgc cgctcgattcg acggaggccg gcgtttccgg ggctgaatg gaattgaaca 60
 attgaagccc caaggaccgc tccatggatc cataggtatg caaattgcac gcacggagtg 120
 ttgattgtat ttgcagatta tgtgtgtaat ttactcaatg aganaaaata gcgtgctaca 180
 ac 182

<210> 11053
 <211> 423
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-029-Q1-E1-D8

 <400> 11053

tcgcgggtcg acaccttcca caaacgtgac acgatctagg gcagcgctgg ggaccggcaa 60
gtcgcgagtt cttacctcga aggcgtcatt ctggcaaacc aagataagga taacttcctc 120
gtgccttact ttcccgagta agtcctcccc tcaactggcc cgtaacatat gaattcttac 180
atttcgatcg tttttctttt aacattccat gttttctgca gtgacacacg ttgcacgctc 240
atcctcctaa gccccaaata ttccatggcc acatatttcg acccggaccg tcagtcgaac 300
gtagactaca caaatgtcaa gaaggttctt gatgatgtcc tccccggcta cgccaaatct 360
ggaggcacct tcactaggcc tatttgtaag tacggcaagc acgtgttctc ccacaatacg 420
acg 423

<210> 11054
<211> 389
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-029-Q1-E1-E1
<400> 11054

ccgggtcgag accgtgggct ctgaagaaaa tgctggggca tctccagctc aaatacaaga 60
accctgtagt catgatccat gagaacggag ctgctagcat cgcggatcct tctgctggga 120
acgccccga cgacgagttc aggtcgcagt acctgcagga ctacatcgag gcgaccctcg 180
aatccagcag gaacgggtcc aacgtgcagg gctacttcgt gtggtcattc ctggacatgt 240
tcgagtatat attcggctat cgcattgggtt ttggcctcta tgggtgtggac ttcaactctg 300
aggagaggac gaggtaccag aggcactccg ccaagtgggt caccggcttc ctccgtggcg 360
gcgacctcag gccgggtggct ctgcccggc 389

<210> 11055
<211> 397
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-029-Q1-E1-E10
<400> 11055

cgggtccaca acttacagca aatgtgaacg atgcagaaat agtttcagta tgccatgcag 60

gcaaagaaaa ccaagtcaat tcattgcaaa acatgttggc tgcaccatcg tcgagttttc 120
cagtcaatgg ccattcttct aatggcagta ctgaaaaaac tgatatgaca tgcctctttg 180
gtcccaaaac aaaaactgaa agactcgagt atttaacccc agtgtcaaag cacagaagct 240
taccagctg tagcaatgat cggaccagtc agcacagctt ttctttctcg aaaggacatg 300
gtttagagag aaaganaatc aagccgctat ggacttcaac anaaccaact gcagctgatg 360
tcagtgacaa tttccngact aaaataattg cgagata 397

<210> 11056
<211> 439
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-029-Q1-E1-E11

<400> 11056
gtccacgtta cacactatac tgagtcgtag taacctggaa acttgtccac ttccaaggctc 60
aggcccgtgg acttggagcc cgccatggtc gggtcctgca ctttcacgat cagcagcttc 120
tccaagctta aggcgacgct gcggagcttc gagtgcgcct actccaaacc cttcagcata 180
ggcgggatag catggttcct caagctctac cccaatgggt accagcgcga cgaggaacgc 240
gtgtccctgt cgctagtcg tgaacgttac aaccaaccgg caacgactgc ccagttcaac 300
tttgagtttg aggggatcgc caattatgag tctagtaaga taacacacat tttcaatcgt 360
ggcaactacg aagtcgaata taagctgccg ccgctcagca cttctgcaaa acatgaccct 420
ctcatcatcc aatgttgtc 439

<210> 11057
<211> 296
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-029-Q1-E1-E2

<400> 11057
ttaaggacgt cgcgccttag caatcgctaa accaactccg aaaggttatt gaccgcgccg 60
gagcatgac aacctgacca cgaaggctctg tttcctgcag gcaaacgaag aatgagcaag 120
aaactaagat tgcaatctgg atattgcgaa tataagagga aagctttatt gatcaaggctg 180

gggttctgtg acgcctttgt ctggtcgttg aacacaaacg aagtacgcga agttgcagct 240
atggcgaact ttaatctaaa caaaacccaa agtctaaacg atgtcctaag gggtgt 296

<210> 11058
<211> 395
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-E3

<400> 11058

cgggctcgaca ctatgacaga aagtgactcg tcataatcgg gaagcatagg tcctattcat 60
catccagtag gtaaagtaga ccagatcgaa tttatgaact gtgactgcca tcacagtgtg 120
taagtatgac taagaggaaa tttcagtcag ttttctatc atcagactgc ccattaatac 180
ttacaaaaat tctcatgtga tagaatcaac aagtcaacat gtgcattttc aaataattag 240
ctcacccaaa acccaacaac ctatgttctc agccacccaa caagtgcac tcaacgttat 300
acactatagt ttacgtgaca gctcaagata catcaaccac tcatatagtc ctctaagact 360
gctaacaggc actacgttta catgatcatg acatt 395

<210> 11059
<211> 445
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-E5

<400> 11059

gggtcgactg ccaccaaagc gatatccatc atctcatcga aagacgggac acctttgcct 60
ttatcaagtg gtatcagatt tccaagttgc tcggtgagat tttacagttt ttcgtagttt 120
agatcgagtc tgttcttcat acctacagtc cacgaaaaag ccacaaaaaa aattaggggt 180
agttcatcat atccgagcca atctgagcct ttgcataatc tttttaggtt tttgctttgt 240
tgaatttgcg gttgcacgt cgtgtctagt tgctggtctt agagtctagt cttttagagt 300
ttcgagttct ggtcataagt tgtcacgcca ccgcccacc atcatcatcg cccctgccat 360
ctaccaccac cgcttatccg ccaccgcttc gaatccgtat ccatatacca ccaccgctgt 420
catataccac catcggttgg catct 445

<210> 11060
 <211> 388
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-E6

<400> 11060

ctcgcggggtc cacatgctgc gcaacacgcg gtcctgctac agaaagccgg ggcgtcccgg 60
 gtcttacggg gggcagcagc cgcagcaaca gctccattg aagcgaagat ctttgcacgg 120
 atcgtccttc gcaacttgga gtcaccacaa gcagggcctt ccacatagaa gcaaaggatg 180
 atgagcaaac agcactccta cttttcactg gtggagaaga gcagctgacc tatattattcc 240
 cccatatcca tggcttcggc atgaaccaga cgacatgacg gctatcgtcg tcgaattttg 300
 gcatttcctc ctagagaact tggttggcat cttgttgctt ccgctgagtg tgccttgcca 360
 atttgtgtgg tagagcaagt taaggtaa 388

<210> 11061
 <211> 354
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-E8

<400> 11061

gcgggtcgac gttcacatga caacactatc gggttgacaa catacatctc atcaaaatat 60
 cgaacgaata ccaaattcac atgactactt atggcaagac ttctcccatg tcgacacctc 120
 agaggacagc gaagcatgcc cgctgtttgc gtgatatgct tggaccgctt aaatcacatg 180
 aactcatggt aacataaaag atcatacttg tttgatccat tggttgcgca tatgctctct 240
 gattcagatt aactattggt ctcacgctg actttttggt gatgaggata atgctggctt 300
 ttgtgcgctc tataaagtct actaccctgc gtccaatgta ccatacaatt tttt 354

<210> 11062
 <211> 273
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-E9

<400> 11062

cggggtgcaca gcgttgatga accaccgtct cttatactac acagactcga tagactcgct 60
gacttttaaag cctgtgtaat gcgtggcaca cgccaatgtc gagtttaatt gtcgtagtct 120
ccggccgtga tgctcgtatc gccaaagcaca cacactgcc a ttgcatgaag tcgtccattg 180
cgtagactca tagtgcaaag ccgtgatatt gggctctcgtt gatggacgct aaaccgagta 240
cagtgtgtgt gtgtgtccct tgctgcattg gcg 273

<210> 11063

<211> 420

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-F1

<400> 11063

gggtcgaggc tatcaggga ctcagtgttg agaatgttcc tagaggtttt gttgtagcga 60
tggaagttca atctacatta ttgggaaaga ttcgtgaagc tcagaaggat gacaaggaaa 120
ttgcggagat aaaggagaag atgagtgaag gaaaagccaa aggttttctg gaggatgagc 180
acaacacctt gtggtttgag gaccgtgttt acgtgccc aa taatgcggag atcaggaagt 240
tgatacttca ggaggctcac gactcgccat acttgatata cccagaaaac accaagatgt 300
atctgccaca gccctagaat attgtttgta aatagttgca tcttcatcca ggcacatat 360
ttaaatttct aaaacatgag ttgaggattg ttggaaaccc tcaaaaccct aaataaaaaga 420

<210> 11064

<211> 355

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-F3

<400> 11064

ggccaaacca gaaggctggc aagcaaaagc agtagcaaca atggagaggc gtagcggcgt 60
gagcgtgagc cttgttcttg gcctcctgct cgccaccacc gttgcttgcc atggtgagc 120
ggacatccca gcaactgagc ccgagtccta ccgtcccat aacgtctttg ggttcggtgg 180
tttctaccct ggcccgctcg tcaactgggt gtttcgggg ccaaacggcg tcacaccaca 240

ggtaggcttc ggcgggatgc cgggctctag ctcttccct ggcaactagt gctcgtccgg 300
cagcagtggc gtggtcggca ttcattggtgc tgccaatccc tgatcgtgtt gttgt 355

<210> 11065
<211> 432
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-F4

<400> 11065

gggtccacca gaagggcttt ccacgtgaag tcttgtctat gcgcactgat gcaccgctct 60
gatttgttct atgtgcatca aggacaagta aactatctag tacaacatgc tttttcaagg 120
acaacaagta tactattgtc cttcgttaatt ggcgatacaa acttttttct ccatcttggc 180
cgttcgaggt caaaagattc catggagtgg ttaagccagc tcgctaggga catggaaatc 240
actagccaaa ctaccacggg actgccgtcc acgccgaaaa ctgtttgtct aattaaagca 300
gacagctgac tagttaacat ccttaatcgt ggctggtgtt ggatgcctta aacttaaagc 360
tggcaagggtc atggcgacgc cggcctaatt agttgatcga gatctagaag taatcaaattg 420
cgcatgccga ac 432

<210> 11066
<211> 321
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-F5

<400> 11066

ggccgacatg actagtcgta aaccaaggc ggcacaaact tataggaaca tgcatacatg 60
accagcaac gaaccgtgtt gatcatgaac atatgaacgc aactcgtagg atgctgcaag 120
gacttaaagg aataacgact gtcatttccc tgaaaggaca catacattaa cgaagaagga 180
cacatgccgg gcagcctaag tggtccggat cagtagcaag ctaccatgga tcagtggaag 240
cactatgaca cattttccca tatgagacgc tattaagaat aaacaactac gttgtccgat 300
cccacacaca ccaatcattt c 321

<210> 11067

<211> 350
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-029-Q1-E1-F6

 <400> 11067

 tcgaccgaaa tagagcccac agagaggggta acgatagaga tgtacccacc agcagccaag 60
 tgcattgtctc cggaccagag tgttttcagca gagccatcag agctgtgggtg actcctccca 120
 acttcagggtt ggcgactgga gtcagcaagt tcaacgggtga gtctaagccc gatacttggc 180
 ttgaagacta ccgagtgggtt gttcagattg gcagcgggaa tgatgatgtg gccatgaagc 240
 atctgcctct tatgttggaa gggtcagcca gagcatgggt gaatcagttg acaccagca 300
 gcatttacac ttgggaggac ctctcccgag tgtttgtcag aacgttcgaa 350

<210> 11068
 <211> 428
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-029-Q1-E1-G10

 <400> 11068

 cacgggtcga cgtggcacgc gtatgatgat ccttgctact ggattggcaa tggtaaccgc 60
 cgttatgcat gtattcatca tgttctcgca ggccgagcgc tcaagctctg cgaaagcagc 120
 aagggaccga gtgaagaagg attgatagct cgtgtgaaat tcagtctata ggggaactgc 180
 caatttattg tgttcagaat atatgtagac acaggctcca tgggtcaaata ctagtatgtc 240
 cttgttgtcc tcggtgaagag cttcaggaat tttgtgtggc gagaactgtg agctttcttc 300
 cttctttctc tactttgtaa tgacttgtaa agatttgctt tgccatacca ggaatcgctg 360
 ctcgaattta tcgaagcttt tttttatcta aaaaaaana aaaaaaaaaa aaaaaagcg 420
 gccgctct 428

<210> 11069
 <211> 370
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-029-Q1-E1-G5

<400> 11069

ctcgcggggtc gacgctatcc tctatagtgt gtcgtcataa gaaatacagg atccgtcaaa 60
aacgtctgggt gacgccaata caggctcaga gcatgaacct cgactagctc atcgtagtga 120
agaacaacag ggccatgcca tgtgcggaaa gcctactgca ttccttccat gtaataaata 180
gcactggcat ggctgatttt ttaaacgagg gcgctgattt atacagtttt ttcttcttat 240
gctgcaacaa caacatcagt gtctatcaga tgagagcatg ccatgtacag cggggtagat 300
gttctcactg gatttctacg tcggcacgac gacatcacga attgcaacag cctgcctgtc 360
gtcatcatgc 370

<210> 11070

<211> 267

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-G8

<400> 11070

gggtcgagac caccgccatc gccaaagatcg cgctgtttga cgccgagttt atcacaggga 60
gggtgaaggt gattctctcg ggtggaggct gcggggagtc cgtgatgtat gtcacccagt 120
cgtccttcag ctccagggct tgggtggttac ggaacaatga cgccacatgt ccgtcagagc 180
ccatgctgag gacgatgaga tcaaacttgg cgcagtcctg gctctccgag actcctatag 240
tgcggatctt ggacagctgc ctgatga 267

<210> 11071

<211> 364

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-G9

<400> 11071

gggtcgacgt taaccactca cccagccat cgaagtacct cacaagttat gtctctcctt 60
tctctgacac aggatgattg atcttcttat gtcattacgt cagcttagta catccgtatc 120
gccctccatc attcatgcat gcctcctgat tcagtctttc acagacttgt gcacagacag 180
gcagttatcc ccacacgac tgatattgca ggctgctgct ccggttgctc atcaagccta 240

tcacaccatt tgttggcagc agtgctagta ccactccctc catgagtcaa tctctgtacc 300
tctccgattc ttactcatct cgtacacata cgcattggatg ccgatcgatc tcgcgtaata 360
catg 364

<210> 11072
<211> 435
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-029-Q1-E1-H1
<400> 11072

gcgggtcgac atgagacgat agctggagtc gtaattattt tcattcattt gcgctctata 60
tcgatcgggc tattttgttc atttcctaata atcaagtaac taataactct ettgttcatt 120
taattttctt tgccctcgtag cgtttggaga cggttcgtag atacaaaggt cggatgaattc 180
aaaaaagagc tagaattcaa aagggcaaag gctaagaatg gtgaggatat tcagccagcg 240
gggaccaatc tatgtgcata ctatgtctgt gagatgatcc ggagatacac ctctgagcgg 300
gttccgagtg ataccaatgc tcagaggaat aacctccgga tgatgcttag tccagaagct 360
cgcttccgac cacttcaaga ggaactanct ggatggttca agagggaagt cctccatcct 420
aaaggagaac accat 435

<210> 11073
<211> 432
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-029-Q1-E1-H10
<400> 11073

gtcgacgccg atcacgatgt tgggtcggca ttagccgacg tcgatgcggg aactacttct 60
atatatagtt gagtaaaagt agttttatta attaaatcaa ctatctagtt caactactaa 120
gcacttacta taaataaata agtagtactt actaaagaca aactacgtcg atatatagta 180
gaataagtta ggttattaaa ttaactagct agatcaacta tagatgaact acttcttatt 240
tttttccttt ttctaaatac tttgaacaaa aaaatcatta aaattctatg aacaaaatta 300

attactacac atctagtcta aaaaaaatc taatctagca acaaaaatct atgaactaca 360
 tatctaaatt actacacatc taatcgaaca aaagaaatct aattaatcta acagaagaat 420
 ctaacataat at 432

<210> 11074
 <211> 79
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-H2

<400> 11074

gggtcgacgc tgatccatag atggagtcgt ctaaatcgat tgatctccat ctggaccgat 60
 ccatcacgtg tgatacctc 79

<210> 11075
 <211> 359
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-H3

<400> 11075

gggtcgacat aaccgataga ctaacctctg acgtgccttg cctacatgac catgcaagat 60
 gtcaacgccc ttcctacttt taaccacat ggtggggcca taaccacag ttccacatga 120
 tcgaaacctg actctccaat acacctgtt gtcgaagtta ttcctcgcg c ttggcttcat 180
 atttaattca gggccacctt tctagtgtc tattctggta tcagacgcaa tacttactct 240
 cgctgtcttg aaaccctttc tcactctggt tcagacttcg agcagctatc tatccacttg 300
 gcacctccta ttgtaccttc atatcttact cttgatgtat tcgatatggt caactcgag 359

<210> 11076
 <211> 377
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-H4

<400> 11076

cacatgtcaa gcaggcaaca aatgacatta atgcacctgc aaggatgagg gtggctgcaa 60

acgagaaggc ggaggtgag aacattgtcc agatcaagcg tgccgagggg gaagcagagg 120
ccaagtacct gtctggcctg ggtatcgccc gccagcgcca ggccattgtg gatggcctga 180
gggacatcgt cctgggcttc tcagtcaatg tgcctggcac cactgcaaag gacgtgatgg 240
acatgggtgct gattcaccag tactttgaca ctatgaaaga ggttggcgcg tcctccaagt 300
cctcgggcggg gttcatcccc catggccctg acgcggtgcg ccgacatccc cacgcagatc 360
ccccaacggg cttcttc 377

<210> 11077
<211> 307
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-029-Q1-E1-H6

<400> 11077
gggtccacaa ctttcaccgg taatctgtat gcaacgtcat aggaagaaaa actatcaaat 60
atgtgaagga gcagtaaaca aaaggatctt aagctacatc tacatatatt acataaggat 120
cttcaattat gggaaacaaa aagatatgca aaaacacaca tcaatgtaat cactggtttc 180
aaccacaata acatatccat aaactttccc cccaaaaaaa aaaaaaaaaa aaggaaaaaa 240
aaaaccggcc ctccaaaaga ttcaaaccta acttccccctt caatgcaact taaaaccctt 300
ccaaaat 307

<210> 11078
<211> 414
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-029-Q1-E1-H9

<400> 11078
cgcttgcccc tacgggtcct agattcacgg gtccactcgt gatagctcca gatctcatcg 60
tccttggtag atctcgcagc cgaagcttgc ggtctctgtc ggctatgaaa tgcaggaggg 120
aacaaggaga acgtgtctgg actccaggct tgatgttcta aagaggaaac cttgttttag 180
tggtgggtgg atgataatga tgggtgggat ccgactggat gcgacggtgg aaccgaactg 240
aactgaggtt ggggtgttgg gcaagctcgc ccacctggcg ccgaaatgaa acgcggtcgc 300

tctcatctcc atcagatcga ccagaatacc atctcatcaa tcagtaagga aaattatcgg 360
ccggaagata ctacacactc tgaatctgaa tagagaaaat tcaactttcg ctta 414

<210> 11079
<211> 445
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-030-Q1-E1-A12

<400> 11079

tcacgggtcg acaccactcc ctaaagtggg tcgtactata cgtgcatcct ttgcccactg 60
ccgaagcccc ctatccttga gcttgacaag ctcatgtggc atcctggacg acgtcctcgc 120
catggcgccc aagcctcgca accacatcgc cagctgccgc caaagctgat catgttggca 180
gaccaggatg aggacaaccc ataccgcacc caaggtagta atttcagtca tgcttaccaa 240
caagtttttt tctacgaaaa caaaactttt gtttctgggc agcatgttcc tcccgggcat 300
caacactgtg caactttgaa tcaaaggtg aggtanctag ctcccttatt gttgttttat 360
ttgattttcc taaggcatta catacataat tgtaacccgg cctaagcttc ctagaaatac 420
ataagtctca ctaggaagtt tggat 445

<210> 11080
<211> 433
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-B11

<400> 11080

ggtcgacgcc aaagacgatc tcaagacatg caagcgcgag atgtcagtcg ccacaagagg 60
agttgagcga gagattggct ccctgcaa at ggaggagaag aagctgggtg ctgagatcaa 120
gaacactgcc aagactggaa atgaggctgc aacaaaaatt ctagcccggc aactagtcag 180
gcttaggcaa caaatcgtca atttacaagg tacacgggcg cagatacgtg gagtagctac 240
tcacacacag gcaatgtatg ctggaacttc aatatctgct ggaatgaaag gcgcaagcaa 300
agcgatggca gcaatgaata agcaattgga accaacgaag cagatgaagc agatgagaga 360
attccagaag caatcatctc aattggacat gacgcttgag atgatgtctg atgccattga 420

tgaaacacta gat

433

<210> 11081

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-B9

<400> 11081

gtccaggggt cgcagagact tgcagaacac gcaagctttc tcatggagct cgtgtccaat 60
gatactgaaa ggaaaaatgg agtgaaagtg ctactgctcc agttttgaac ttcttattca 120
gtcatgctat tactgagtga aaaatggagt caaagtgtat tgcaattgat ctctcttaga 180
ccctggcaat cctctatttt tatcctttgt ttgcttgtct tttgggtctgt aattcaagaa 240
ctttgacctt cgtaattcgg tttttgggta atttattatg cccgggtacaa acctttaaat 300
ctgaagaggc ttctaatagc aaaaaaatgt gcagccgggtg tgggtctatat gtcaattcat 360
gtatgaaaat gtgcattcgg tgtgggtgtat atgttattcg tgtacatgta ttatatgtgt 420
gaaaaaat tctgtatatga tgagatgatt g 451

<210> 11082

<211> 447

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-030-Q1-E1-C10

<400> 11082

ctcacgggtc gacgaccatg tgtaaaactaa gtcgtcataa atctcaagat gatatgctct 60
catagagtan ggtgtgcatg tgtacattca tagagggtgag tgtaatcgcg tatgtatgag 120
cggttgcatc tgtactgtgt taaaaaaact cctactatta tacatgcacg tagccaattc 180
atcctcggag accatgccc actcaggaca tgcaccatcc atcaacaaaa tcggagaagc 240
agtgcagccc gccataaccc cccaattatc caacatgggt acacacatta tttgatttta 300
gcctgcaaaa aaaaatgcag gagtcccgat agcatggaag catcgatttt tttcactgaa 360
gacaccaagt gaatacacca aaaaataggt caaatgtgaa agggaaaata acagggtaaa 420

taaacttttg aaaagaccct ataggag

447

<210> 11083

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-C12

<400> 11083

tcacgggtcg acggacctcc cgaggatgtg tctgttaga cagtgagcct agtgagtgag 60
cacaaacatg tctgcctctg tcatggcgtc tttggttctg ctgaaaccat ctccctctcc 120
actgttagga cgagcgaagc tccggggtgt gcgaccatcg gcgaggccat cgctgctcat 180
agtagccagc aagaaggcga agaaggcca gactgcccaa ccctacgggc ctggtggtgg 240
agtggtgttc aaggaaggcg tcgatgcgtc cggaagggcg gccaaagggga acggtgttta 300
ccagtttgcc gacaagtatg gagcaaactg tgatgggtac agcccgatat atacaccaga 360
agaatggtct ccaagtgggtg acgtttatgt tggaggaaag acagggctgt ttctctgggc 420
agtcactctt tctggaattc tgttgggt 448

<210> 11084

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-D10

<400> 11084

ggtcgacggg tccgtgcaac tcttctgctc cgatcccatc accactcgct actgtatgaa 60
gtaccgccac tgcgacggga agctcgtgct caaggtcacc gacgaccgag agtgcttgaa 120
gtttaagacg gatcaagctc aggacgcaa gaagatggag aagctcaaca acatcttttt 180
cgctctcatg actcgtgggc ctgatgctga tataagcgag gtttcaggga aggaacaggc 240
ggagcagcag caatcgaaga agggacgggg caggaggcag tagtatcatg ttctggattt 300
ctttcagaaa gatcacaact gggagtgggt ggtggatatt ttgatggact cctgttagtc 360
atgttacaac tgtgagtggg ggggtgtcta agagtggcaa atagttttca gacaatgtgc 420
gccatcttcg gatccttttc ct 442

<210> 11085
 <211> 375
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-030-Q1-E1-E10

<400> 11085

tgaacacccat gaaagagatg gtgggactat canaggatct gctctcatgg gctcgacgac 60
 atgacctcgt ctgaagattt gcaggaggcc ttcgacgtca tgggggcgct gccagacgtg 120
 ttctccagtg ggtacacgaa atgcgatgat tttgtccggg cagccataca ggctgggagg 180
 aggagctgat cagccacaac tcctctccac tgtttgtgtt gatataaggc acgacccttt 240
 ttgttttgta tgatgagata tgcagcttat gtgtgtaaac agtctagcac ttggacatca 300
 gctggttgaa cttgtataat attatgctgt ggaattgccg gccttcattc tcaacatgct 360
 ttgctcctgc tgcca 375

<210> 11086
 <211> 386
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-E12

<400> 11086

catctatatg ttccccctgtg cctgtgttgg cagtaggatg atacaagtac atgggcaggc 60
 atagcatgca gacccaagtc cgtttcaaag gagctgtgag ttggggttgc tacggatatg 120
 tgccatcaca tcagagtcca gtaacactaa ttcagacagt ggcagttata ctgcagtgca 180
 gagcttccac caacatgttg ttgcagcagc atagcagagt atgcatgctg tgttgctggc 240
 tgttccgcga tacacatctc cagtttagcag cactgaccca gcaccaatcc gatcatgccg 300
 ggttcctctc aaaccaggga cagtgcagca ggaaggcc cgacaaatgt gtgttgggac 360
 aaggccatgt gatgcgtgcc gctatc 386

<210> 11087
 <211> 448
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-F10

<400> 11087

ggtcgacggg cgcctctaaa gaggatcgac caagctgaga aggcaaagac agaggcttac 60
atactogagt tggctcgtgcg gcttcaccac cttgttagcc agagcaaccg gccggcaaata 120
gttaaaaaag cccagtcctat gtaaccatca tcaggatcatg gggatgatgac aagcgcatta 180
cacacaagtc atggcctgac aagagcagac agaaagccat tacgatctgt ttcgttttca 240
ttgttgctag gttgtataga agggggaact gtgtctgttc ttaccaggaa ggacttgaaa 300
cctgatatta ggtagggaaa taacaagagc ttctcctttc atcttttggg ttctttgaga 360
ggctgggttc taattccatc tcattgtatgt ggtgttgaca ttgtttaaca cctcaaaaaca 420
tcgtggctaa ataacaaact taatacta 448

<210> 11088

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-F12

<400> 11088

ctcacgggtc gacgagtctc gctacagtga gtcggcccat gatcttgacg acatcgtaac 60
ttcaatttca cagctacgaa tgaaaaacga acacggagac cccttgagc cgtaagaaca 120
tgactacca aaagaccttg catcactatg atcataatct tatgagattt ttcaagtcca 180
cacataaaac atagcattta taaagtagat gatcggtatc acttaaattt ctagaattgt 240
tgctgggtgc cgggtgaaaa tttggtgtat gggagggaaa aaagcaacc attgatgagt 300
gggtcccacg tgacaagaaa gattctatag gttgctatta caaaaaatca tttcaagatt 360
tttgatttta catatactga cactagtaga aaacgggggt tacgttcggg ccagataagc 420
ccattagtct tggttccgtc acgaaccggg acccat 456

<210> 11089

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-F9

<400> 11089

ttcacgggtc gactgtccgg acgaaaatgc cctatcagcc ttcaaacaca gcattcggga 60
tgaatggcta gacagccatc tcggacaaga aaagccagag ccaatggtat cccttacggc 120
actcatgacc cgctttttgcg caggcgagga cagctagccg gctcgtagca aaaacacagc 180
cagtgaggca ggccttacag aggccaggaa cagcactggc aagctccggc gcaatagaca 240
caaacgcaga agcaatggcg acaacatcaa agacaccaca gtcaacgccg gattcagtgg 300
ctccaagtcc ggccaacgaa agaaacccta caaaagaaat aacaaaggac cttccagcct 360
ggaccgcata ctgcaccgcc cgtgcgaaat tcatggcacc ccggataaac aagacaatca 420
taccaacagg gattggtggg tcttcaag 448

<210> 11090

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-G10

<400> 11090

tccctaaact gaatcgtaaa aatcaggaaa agtgggtcac tttcttatcc tttggtaaaa 60
cgataagctt gaatacaggc atcataatcg aaaaacagat gaccaaaaaa gagatgttaa 120
ctattcatga taacaaccat catggcaaca aacacattac accactgatc agctagtaga 180
tctcacaagg tcagcactga gcaagtcttc attatcttta acatagctct tgaaatctct 240
cgctacactc ttcacattaa gtcattatt ttcagcaccg tatgacgtac aatcaagcac 300
aagctgcaaa taagccaaac cataaatata caggggaaaa ggataaacia agcaatgtat 360
tatcataact cgtaaaccia aatatgcgtt cctgtctaag agaaacacia gatctggctg 420
gttaccg 427

<210> 11091

<211> 428

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-030-Q1-E1-G11

<400> 11091

tcccgaaaat gagtcgtagt aatcanaagg atggcacctc aatgctcttc agagacccaa 60
cagtctgcac atctgcgtga cgcttcaaca cacggctatc tatgaggaat tcctcaagga 120
cctcgaggat tccgtggaca cagtgaagc gaatccaggg cctatcagtg gggggatggc 180
tcccatctat ggcgcggctg ggaagatgcc ggacagaggg acggtcaagg agttgcttgt 240
ggagttcatg gacagctctt gctaaccatt gactataccc cattggttat ctctctgtaa 300
catgtatgac tgttgtgtga tcttctatat ttggtttggc tgcaaacag aaggcacaca 360
atgcctccaa tacagacatg tatctatgta tcagttacat tggttgcaat gaagttacat 420
tttcagcc 428

<210> 11092

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-030-Q1-E1-G12

<400> 11092

ttctagggtc gacgtacca acgaacatga aaaatgccgt taagaagaag cgctgctcg 60
ccccgttggc ggggccaaagg cgggcgattc cgacagtcac cgggttagtg gacttggttc 120
ttttttaatt gcctgctact tctctacact tttcccatgt tcatgtcaca ccatgcagat 180
ccgcccttga cctgatgttg acggcgacgg tggaccagac catagagtgg gagccggacc 240
ggaccacaga ggacctcgtg acctggcaga ctggttgcaa acctgacgtc acggagcgtg 300
ccgtgtggcg agaccgggag ctggcaatga aagaggcggc ggagcatgca acgagagacg 360
aagaggcttt agcttacgcg cgtgatagag ccgccc 396

<210> 11093

<211> 435

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-030-Q1-E1-H10

<400> 11093

acgtccctaa actgaatcgt actactactc cagaactgcc accgcctagc catacatttg 60

tcgtcgccag cagccacgat ccgccatagc cggccaaccc cgctgcatca aactcctttg 120
 tggagagatc ctccttgccct ttgcaggagc cacatgggtct tggcctggcg gcgacgagag 180
 ggctggaaaa gttggcgcg agggatangt ctgacctgtc gtgtgtggct atgcgtgcaa 240
 attcaaagaa atcccgagtg ggactactaa ttgactagaa tagagttttc tccctttttt 300
 tatcatgtat aagggtgcact ggaccaaagt cgcaactcag tagaaaaatg ccgattcgat 360
 tgaattgtta tcaagacaag gcaatattac tattttcagt agtaagaata attccaggca 420
 gtagtgtcat caaga 435

<210> 11094
 <211> 372
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-030-Q1-E1-H11
 <400> 11094

ttagacataa ttattttattt atattggtgt taaacctact gcattcaaac ttctctatgg 60
 tttataaact cttttactag ccatagattc atcaaaataa gcatacaaca caccgaaaaac 120
 agaatctgtc aaaaacagaa cagtctgtag taatctgcaa ctaacgcaaa cttctggaac 180
 tccaaaaaaa tcagccaaaa tacgacgacc tagccaattt gtttattgat cagcagcaat 240
 tggaatcaat attttatcac gttctggtgt tttttaacaa ttattttcat gaacagaaag 300
 tttctgggaa ttacagcaag atcaataac tatcatocaa gaagatccta taagtttaac 360
 ttgggaaaaa ca 372

<210> 11095
 <211> 419
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-030-Q1-E1-H9
 <400> 11095

tgactcgta taggcggctt anggcaagaa aacaactcat cgagagccat gcatagcgta 60
 tctcgctccc tagtcatcga aacatcaata ccaacccaac tagacgtagg ccttaccttc 120

accataaggg gccgaactag tataaacct ctcgtgtcct ttgtcccatt taacccttc 180
aagcttcta gttgcgatgg ctccacaact aagtcctttc acgaggacat ttgacgtgac 240
aattccacga cacatatcat caatatcaat caagcaggag tagggtttta cctccatcga 300
gagggcccga acctgggtaa aaacatcgtg tcccttgtct cctgttacca tccacctaga 360
cgcacagttc gggacccct acccgagatc cgccggtttt gacaccaaca ctttgttat 419

<210> 11096
<211> 363
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-031-Q1-E1-A1

<400> 11096

cagcacgtac cccctcgtca agacgttacg gaagcaagat cctccgcac ctcaaggctc 60
atggcctggc gccggaaatc ccagaggatc tgtacttttt gattaagaag gctgtggcca 120
ttangaagca tcttgagagg aacaggaagg acaaggactc caaattcagg ctcatcttg 180
ttgagagcaa gatccaccgt cttgcccgtt actacaagcg caccaagaag ctcccgccca 240
cctggaagta cgagtctacc actgccagca ctctggtggc ttaagagggc tcttcatctg 300
gtgtgctctt actggcttca ggatggtctt gttctacata ttatcaattt catgtaacgc 360
ttt 363

<210> 11097
<211> 383
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-031-Q1-E1-A12

<400> 11097

ctcgcggggtc gacctaccac catatgtttt aactacgga tactacctgg catacttctg 60
gatgaacaac aggatgacta gagatgctct cgggatcaag gggggaacag ttggcgagtg 120
ggtgagatgc aaaaaagaac tcccctacac acaggacatg ccaagcagca taccgtacca 180
tcttaatctc accacgagag gttaccgtgc actcgtatac agcggagacc atgatctcca 240

ggcgcctcag ctcagcacgc angcgtggat aagatctttg aactttctcca tcggcgatga 300
 ccggagggca tggcatctcg attgccaagc tgcaaggatt taccaccaca tatgcaaata 360
 acttaacctt tgcaccatta aag 383

<210> 11098
 <211> 453
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-031-Q1-E1-A2
 <400> 11098

ctgcagtacg gtcgaaaatt cacgggtcga caagtatgac attggagcgg gctttggaca 60
 ttttggcaac ccacaataag gatttttcaa actgggttga aacatttaaa caatcctcaa 120
 gttggtagaa tactccgtga acctggtcct gtcaaaggag ggtccactgt gattgctttt 180
 gcaccagacc cagatggtta catgttcgag cttatccaga ggggtccgac gcctgagcct 240
 ctctgtcaag ttatgcttcg tgttggtgac cttgatcggc ctatcatgtt ctacgagaag 300
 gcccttggga tgaagcttct gaggaagaag gatgtgcctc agtacaagta cactattgcc 360
 atgatgggct atgctgagga ggataagaac actgttctgg agttgacata caactatggc 420
 gtcacagaat ataacaaggc caatgcatat gct 453

<210> 11099
 <211> 433
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-031-Q1-E1-A4
 <400> 11099

cacgggtcga cgtttgacgg tatattgggt cgtgttaaata agagtacgtt ataagaaatt 60
 aatcggtcag ttgaatagtc gggagcagta atttaatcgt tcaaattttt ttcttgtgtt 120
 agtatttttt tagtagtctt atagtagtct tagatttttc attttgatga gcctcgcttt 180
 gaggaattca tggaataatc cattttcatg gaataatgaa ttaaggaaga aaggatatga 240
 gtctaccgct tacaagaaaa gatctcatga tagtcaatat ggggcgtcaa caccatcaa 300
 tgcattggtg tcttcgactg atcggtactc tcgatgggtg ggatgttatt gattgtgaac 360

ccatattagg ctatttacac agaggaatgg aaaaaatcgc ggaaaaccga actattatac 420
aataacttacc tta 433

<210> 11100
<211> 423
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-A5

<400> 11100

atcggcttca gtttagcagca gtagtgaagg aatcaactcga tcgggttcag tcaacagcca 60
tcgatcgatc gcttgggttt agtaacgcgt agcctgcagt gtaatcgctc gggttcagtt 120
agagcctgac gcctcgctcg gggttcagtt gagccaacgc ctgcacaca cgcggtacg 180
tgtacgagag aagcgcgcat cgctcagccc caacctccca ccgtaaccgg gaactccccg 240
aaattttcct cccctcgcgt tctaccatgg ttttttccat catggacggc ccaaagaatg 300
tcatgcagct gcgctctccg cccgccagg acgaaaagcc cattttctgt catgattttt 360
tgtcatagaa gtaggagccc accacatcaa tgatgatact gggttttgtc acaattatcg 420
tca 423

<210> 11101
<211> 236
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B1

<400> 11101

acctccactt ccttcctcct cctcagtcgg tgctgcgcc tcgttgggca tcgaatacaa 60
ctcagtggtg gcctggaaga caacaaaaca agacaagagt caatcaaccg atttgcagtg 120
aatagaatg aatgaaacag gatcacaacc gaggataggt gttcataccg tgtctggatc 180
gaaagactgg tcgagcggcg ggatcctcct agccccacga aggttgctct tgttcc 236

<210> 11102
<211> 426
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B10

<400> 11102

tcgcgggtcg acattgcaca ctagagtgc tctcataga aacaatgtag aatttttcat 60
gaagattctc aaaaaactaa ttatcccctt gtacgattcc attgtattat aaaaataatg 120
tgccaagatt ttccttttagg atgttttagat cgcttggttg tttgtgcggt gcaaaacaga 180
aactttggct gtagtgctcg attttaaatt ttctactcga atgtcaaagtg gttttgaaat 240
tttttgcact gtatttatat acaaaatttt tatttttctt aattttttca gaattgttgg 300
agtaccatag gtatggtgaa tgttcagatt actacagact atcctgttta agacagattc 360
tgtttttgat gcattgtttt gctcgttttg atgaaactgt caatttttat caatagtata 420
agctat 426

<210> 11103

<211> 222

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B11

<400> 11103

gggtccacat gctgcgcgag attcaggcgg atgaacgtag ctttggtttt gatcaacctc 60
atcctcataa tcgcccgcag actcattaac ctcttggtta ccagcagcag cagtagcatg 120
agccaaagaa gcatcaacaa cagggatagc agcaccagaa gtttggccac cctcaagagg 180
aacacgcttc gctcgtccat actgagtcga aaggggcgtt gt 222

<210> 11104

<211> 199

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B2

<400> 11104

gtgcgcacgg acgcatcagt ccgtacatgt cgaacccctg ccacattgag ctgatcgtgt 60
cagagaaaga aaagcctgtg aacaaggaag ctgaaagcgt cgtcgcacca aggaaagcca 120
cccaaactac cggaatggat gcgatcatcc aacagtccga gttgtagttc ttcacaagta 180

cctttgttgg aagtgtttg

199

<210> 11105

<211> 412

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B3

<400> 11105

cagcagtcac acggtgatcc ttaagctact ggtagctatg ggcagcctac aacgtattct 60

actgaagcta cagcaactgc tgcttcccaa gattaatctg ccggcgcaac ttgccctaac 120

acagcaactg ccgctcctgc tctgccaac agtgggtgcc ccaaacttct ccgagttgag 180

ctgcctgctc ctgcctcagc tgcactgca atctggtttc gttggctctg ctgcttgaag 240

tataatcctc actctatcca tggtatctta ctttttattg cttgcttgtg aactttatat 300

attgctatat tatatcctgg ttttgctgct tgcgtatggc atgtactgct gtgcttgtga 360

tcgctggtgc ataatgtgac ctatactttg gatactgaaa tgcaactggt ca 412

<210> 11106

<211> 294

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B4

<400> 11106

gtcaacgaca gacggtaaaa ccaaaggaaa taaaaccact tacacacaaa gtgattatag 60

aattgttcaa gactgtgaac cgggagggtc ctggtatata tacgttcatt gtacttagtt 120

aagttgatgt tactgttggt ttttctcgct gccgccatgc catgagcaag cgaggcaggc 180

agcttctcaa acttgtgttg ttgtaacttg tatgatggga gcttaagtac attactttgt 240

ttcaaaatac accatgttat ctctttgtt tcttaattaa tgttggacac tggc 294

<210> 11107

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B5

<400> 11107

ctcgcgggtc gacatgacac tctatcgtga gtcgtatgag gtcggagagt tccgacctat 60
gatatttgcg gaagtaccta atgttactag ttttagaggg gtggtagtat atgttcatgg 120
attttaccct catgcggggg gagcagttgt ccgacctggg agatttcctg gccacattaa 180
tggtgtttac caactgggtg attttacata ccttgacgga gacttcacat ctgagtctgg 240
aacgtctggg ggaccagtta ccatgggaga tagagttatt ggagtaaagtg tgcaaagtgt 300
gggaggatcg agatgcgcgg tttccctct gacactatac atgacattta tgaattgggtg 360
tggttttaat ggcggagacc atacaattgc tgcgatgata caacgccttg ctgcctaatac 420
agttttgcaa tgtcaagcat ca 442

<210> 11108

<211> 378

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-B9

<400> 11108

tcgcgggtcc acatcacacc atatactcat tcctagcagg cgatgaatga gatcaatgca 60
gctgcaagga tgagggtggc tgcaaacgag aaggcggagg ctgagaagat tgtccagatc 120
aagcgtgccg aggggtgaagc agaggccaag tacctgtctg gcctcggtat cgcccgccag 180
cgccaggcca ttgtggatgg cctgaggggac agcgtcctgg gcttctcagt caatgtgcct 240
ggcaccactg caaaggatgt gatggacatg gtgctgatca cccagtactt cgatactatg 300
aaagagattg gcgcgtctc caagtctctg gcggtgttca tcccccatgg ccctgggtgcg 360
gtgcgcgaca tcgccacg 378

<210> 11109

<211> 415

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-C10

<400> 11109

tatggctcta gcatcgcggg tccactttgg gatgaaagtg ccaaggggaa atagtactcg 60

cacgtgtgat ctggttttct gcaaaatgct agttacagtt gcttggtccc ttgtttcttg 120
ctatcggggt taaaatccaa gcttatctgt ttggccatcc ttacctgtgg ttgcccagc 180
taagccggtt gaactattta tgtatctata ttgtcatgcc ttgggtacctc cctacctgtt 240
gtacttgatt cattcatcgc gtttgcctcg atgtgggtatt acttaggctg ctcaagtaat 300
gagcatatta gttgttgcta ctaaaactttc tcaactccgct gtaatgttat atattgtctc 360
tggaagttaa agcttattgg taatgttgct gctacattgt tatgtagcat cctcc 415

<210> 11110
<211> 447
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-C2

<400> 11110

gggtcgacgt ccatcactac gatgagtacg ctatcacatc gaaagacggg acacctttgc 60
ctctatcaag tgggtatcaga tttccagggt gctcgggtgag attttacagt ttttcgtagt 120
ttagatcgag tctgtttcttc atacctacag tccacgaaaa agccacaaaa aaaaattagg 180
gtaggttcat catatccgaa ccaatctgag cctttgcata atcttttttag ggtttttgct 240
ttgttgaatt tgccggttgca tcgtcgtgtc aagttgctgg tcttagagtc tagtctttta 300
gagtttcgag ttctgggtcat aagttgtcac gccgccgccg caccatcatc atcgccttgc 360
catctaccac cattgcttat ccgccaccgc tttgaatccg tatccatata ccagcaccgc 420
tgccatatac taccgccata tatccac 447

<210> 11111
<211> 439
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-C9

<400> 11111

acgctgcagt atgggtccgac attccgggtc cacacttttg agacacccat ggtcaacacg 60
tgaggaaatg gtgatagctg acatgcaa at taggcctgga gaagcctggg aatactgtcc 120
tagatatgcc ttaagaaaag tcacaaaagt tctgctggat gaattcaatg tgacaatgaa 180

ggcagggtttt gagaatgaat tttatctccg cagaaaatta gtaagtgagg gacatgagcg 240
 ttgggttcca tatgataata gcagttactg ctcaacctca tcatttgatg gtgcctcatc 300
 tatactacaa gaagtgtatt cttctcttaa agtggcaaat attgtggttg agcagctgca 360
 tgccgaagct ggaaaagggc agttcgaggt tgccttgaag tatgtcctgt gcactcttgc 420
 tgctgacaat ttgatatat 439

<210> 11112
 <211> 215
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-D10

<400> 11112

gtgagtcgta gtaggcgcag cagcgcctag aggagcagcg cgaactagag ccagagcagc 60
 aactcgtgta gttgtttag cccaccagca tcagcagcgt gagcgagagc aagagcagag 120
 cagcagcacg agcgacgggg agagcacagc agcagcgcaa gtgagagcgg gagcggcagc 180
 agatctgggt ggtgtggatg tcgccgccgc cgaag 215

<210> 11113
 <211> 356
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-D11

<400> 11113

tgggccggac atcgcggtc cacatccatc caagtgatcc atagcgatac gccagagga 60
 cgcatatcgt tggcacaac aagttgcagc ctggggatca atggcactgt tacaactgaa 120
 acattttcga catttatata ctttcagtgc atcaaacgga aaatcgacga caacctgaca 180
 tgcaagtcta tgcattgagga cagtatgtgt gtaccatcac tgccttatg gtttgctgct 240
 caaagttaga gtttcgttaa cttgacggtc taagcagcat gtcattatag ctctcaaatg 300
 gtcgtccctt ttacgagccc gtcagtctga acaaaaattg tcacgccgcc gccgca 356

<210> 11114
 <211> 398
 <212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-031-Q1-E1-D2

<400> 11114

ttaatcctaa taatggaagg aattacaaac cttttattca aaaggtccaa aaaggaaccc 60
cctaaaatga acaaaaggtc tttcaattac ccctgggtgc ttgacaagcc caaggccgac 120
cgtgagaggg gtatcaccat cgatattgcc ctctggaagt tcgggaccac caagtactac 180
tgcaccgtca ttgatgcccc tggtcaccgt gacttcatca agaacatgat caccgttacc 240
tcccaggctg actgtgctgt tctcatcatc gactccacca ctggtggttt tgaagctggt 300
atctccaagg atggccagac acgtgagcac gctctccttg ctttcactct tggagtgaag 360
cagatgatct gctgctgcaa caagatggac gccaccac 398

<210> 11115

<211> 399

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-031-Q1-E1-D4

<400> 11115

gaaataggtt ggaacacaca gaaagagaga gagaggacag agagagggag ggaaaggggt 60
agagtgttgg atgggtgatg gagttgcttc tcgaagatgg tgggagaggc ctactagaaa 120
aactgagggg agaactacaa tattatcaat aagagtgggg atgtgtttct gtgtgtgcct 180
gtgctgata gatctgtcgg gacgcatgca tggatgatga aggggaacca tgtgtttgct 240
aagcaaact aactatatcg gtagatcaat tgttgtttgt cggaggaagg gagagacata 300
actaatgagg tagatcgatc gacgctggg gaaaaacgag ttataattaa ggacctagct 360
agctatatgt atagcgggag atctgtcagt gtacatcca 399

<210> 11116

<211> 454

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-031-Q1-E1-D7

<400> 11116

cccgggtcga cgacgaactc tacactaagg cctcacacgc ctccgaacag gcccggtcca 60
 tcaagattct tgaccagagg gtgcagtcctc tggaacgtga actggacgct gccat,ttctg 120
 cagctgctcg agcccgtagc gaaaaacgcc aggctgaagc tgctcaacga gctgcagagc 180
 tgcgtgcaca ggaagtcacg aaggagctgg agaacaccgc aagagttttc cagctgcaca 240
 tggaagagct gcgggcaaaa caagaggaga tcgccaagag agatagtgat atcaagggtg 300
 tggaagcaat aatacgaacc ctgagtagca aagatgatag cggatccagc gagtaataac 360
 catacactgg gagcatttgg gcattctcat tgatgctttc gtgttcaagc atcccggcac 420
 atatttatcg actccatgta agcacttcaa tact 454

<210> 11117
 <211> 461
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-031-Q1-E1-D8
 <400> 11117

cacaggtcca ggactcgagg gtcgagcgga cgctttaaat ttagtcttat tatttttttt 60
 tttgcaaaga atgaaacatc ttactatat cccgagtcgg taactttctc tacaattaca 120
 cgccgcccgt cgaacaccct cgtgagtcctg cacactacaa acaagcacgg acaaatttgc 180
 caaacatcta caggaagaac ccaagctaaa aaaaaactaa tgttctcttt gctttttctt 240
 ttgtcgaaac aaaggagcag acggcccgtg tttcgatctg tataaacacc acgccgctgc 300
 tatatcaggg gttcggagag ctccatctcg ttggagggtct cctctgcctc ggcaggcggc 360
 agtcgtacgt agttcagccc cagccactgc catggccagc acacatacct gtggccgctg 420
 cggctgctcg ggtccgcctt attgtccgac tcctccgctt g 461

<210> 11118
 <211> 393
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-031-Q1-E1-D9
 <400> 11118

ggggtccacca ctgcctcaac cacaaccacc agatgtacca gggagcccct acatcgaccg 60

gatcgaggtc atcttcaacc tccgcaccgc cgctcaccgt ctctgattcg gcctcaccgg 120
 agcctcctcg agcccgcttt gtcacctac aggatcgata cccaagact gccggcgacc 180
 cccagttcga ctactgtgtt gacgaccctt gtcttttgcc agagcaacca gacgatggag 240
 tccaggatcc aaacgccacc atcgacgatg actcctacta cgccggagggt gcctactact 300
 atgtgtagcc cgctgacgat gaccaggagt agttaggagg atcccaggca ggaggcctgc 360
 gcctctttcg atctgtagcc taatttgtgc tag 393

<210> 11119
 <211> 437
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-E11

<400> 11119

tatggtccga cattcgcggg tccactaaat gtcgtcaaca attatccctg cgtcctctgg 60
 cgcgtcgtcc tctggtgagg cacctcctct tgcggcttcc ttcggtggag ctctcttcat 120
 aatcctggtc attgctcagc agaggcccat catctccact cgggaaaagg tcttctccta 180
 gatccatctt ctctccagt gtggcaatat atttcttccg gtctctgagt ctttcataa 240
 aatccttgac ttcacctga tgctcatagt gggcttcacg tgttgcatcc tctagctcaa 300
 tttcacgaag atgcaacttt tggaccgtct tcaagctctt gcgcatctga atctctagag 360
 cctgatgtg agcctccaag tcttgacat atgagcgaac ggagtcgtca tctatggtgc 420
 ggataatctc tccatct 437

<210> 11120
 <211> 404
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-E12

<400> 11120

gcgggtccat actcttccag atcaagtttc ataaaaatca cactaatatt caacaccctc 60
 caaaatagtg ggatcactaa ttcctaaagt tgacactctt ccaacccccac ttctgattat 120
 agtattattc atactccaaa agatataagt gaagttcatg gagcattcta caattaatat 180

agactaacca atatcccagc tcaaaatata taaatgaagc acacgaagca ttctgtaaaa 240
ccatactcaa aagattaaag tgaagcacia agagcaattc tataagatca tacttaaaag 300
atataagtga agcacatgaa gtattctaca aatcaatgaa gggctatctc atactatcat 360
ggtcacaaaa aaaaaaaaaa aaaaaaaaaa aaagcggccg ctct 404

<210> 11121
<211> 376
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-031-Q1-E1-E2
<400> 11121

ccacacatta tgttccccctt tgaaagggtc atgggaggtc taaagaaata tgtctgtaac 60
cgcgctaggc tagaaggaag catctccatg ggccatcaaa cagatgatgt cattgggttt 120
tgtgttgact tcaatcgtgg ccttaacaag atagggtctcc ctaaatcgcg gtatgagggg 180
agactgactg gaaaacgcac gctaggatcg gactcaatat tattcacgga tcggcactct 240
tggtctcaag cacactacac agttctacgg aactctacct tggtgatccc gtatgtcgat 300
gaccacaaga acagtctgcg ctccatacac ccagactagt gcgatgactg gattacatgt 360
gaacacatca ggactt 376

<210> 11122
<211> 384
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-031-Q1-E1-E4
<400> 11122

cggacctcgt caacaacctc gggaccatcg ccagggtcggg gaccaaggag ttcattggagg 60
ccctcgccgc cggcgcgcac gtgtccatga ttgggcagtt tggtgtcggg ttctactccg 120
cctacctcgt cgccgagagg gttgtcgtca ccaccaagca caacgacgac gagcagtacg 180
tgtgggagtc ccaggccggg ggctccttca ccgtcactcg tgatacgtct ggggagcagc 240
tcggcagggg taccaagatg gtcctctacc tcaaggacga ccagatggaa taccttgagg 300
agcgccgcat caaggatcta gtttaagaagc actctgagtt tatcagctac cccatctccc 360

tgtggactga gaagaccact gaga

384

<210> 11123

<211> 372

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-E9

<400> 11123

tccgggtcca cgaggtcatc gacatcgact aggcgtagcg ccagaggcag tttgagcttg 60

acaagatccg gcaggagctc aacaagacca gcaaggagat cggcaagctc aaggccaaaa 120

agcaggatgc aacggagctg atacagagca cagaggagat taagaggagg ctggccgcca 180

aggagaagga ggtggaggag gcaaagacca ccctcgatgc caagctcgtc accattggca 240

acctcgtgca tgaatctgtg cccatcagcg gcgacgaggg aaacaatgct attgtccgga 300

catggggaga gaggagactg gaggagaact tgaagaatca tgtggatctt tgcataatgc 360

ttgacattgc at 372

<210> 11124

<211> 323

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F10

<400> 11124

tccggggcca cgggcttcag gcaaattgga cgacaaaaag atgaagatcc aaccctgggt 60

gcatgatgcg gcttgaagct acgtcattat ttccccaag aggaagggat gatgcaggac 120

atcagcggta ggtatttccc tcagtgatga aactgagggt atcgaaccag taggagaacc 180

aagcaacaca acgtaaacag cccctgcaca cagataacaa atcctcgcaa cccgacgtgg 240

taaaggggtt gtcaatccct ttcaggaac gatgccagaa attggcacgt ggacgggaga 300

aagttgtaat agattgatag atc 323

<210> 11125

<211> 445

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F11

<400> 11125

gtatgggtccg tacatccggg tccacaaatt tactcctagt ggaaagctaa acaggtggcc 60
acttggggaga gcttatcttc ttcgccgtat tgagaatggg atcctgtaca ccgaagagcg 120
atatgggctaa cagcgaaact ctttgtttca tccatttgag tagaattaat acgtatcatg 180
ctagtgtaat tagaaagagt tcgggttcat gtggttgatt ggagacaact taatttttagc 240
aggcattttc tgcgggggaca acttcggcaa attgaacaat ggctaaattg accaacaatg 300
ggtttgaacc taattcaatc caataaccct tttggggggg aaattataag gtttgcaaaa 360
gaaccatgct tgcaaaaatg tatctcgatt ggatgattgt atcctcgact catagtgggt 420
aaccaaccta gtgtgggtttt agtcc 445

<210> 11126

<211> 403

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F12

<400> 11126

gcggtccac tgccaccaga gcaatatcca tcatcacatc gaaagacggt gagattttac 60
agtttttcgt agtttagatc gagtctgttc ttcataccta cagtccacga aaaaatgaaa 120
ttaggggttag ttcatcatat ccgaaccaat ctgagccttt gcataatctt ttaggggttt 180
tgctttgttg aatttgcggt tgcacgtcgc tgtctagttg ctggtcttag cgttagtctt 240
ttagagtttc gagttctggt cataagttgt cacgccgcca ccgcaccatc atcatcgccc 300
ctgtcaccta ccaccaccgc tctattaatt tccaccacgt gctatgcact gttcattgtc 360
ataatcatag ttgaggtcat tcacatcttc acctgattca atc 403

<210> 11127

<211> 405

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F2

<400> 11127

ttccccaaaa ttgatccttg gaaaatttga aaaggggaca acctcaacct cggggtcccc 60
gaaaccctgg atttgctgca aaaattgggc aagaacagta aatcttgtgt atcaaaccaa 120
ttcctataga cagtcgacga tggcgtgtat tcatttgga ttcacaagac ttggccttga 180
agttccccgaa gaagagatgt tcacgtcatc atttgcatca gccagggttct tgaagtaaaa 240
gaatttgtct ccataaaaga gcgtttacgt cggttggtgat gatggcattt tggacgagct 300
caagttagat ggccttgact gtcatggtgg tcccaggat ggcattgacaa acatacggtt 360
ggaggcaaac atctacttcc accaggatac gagtgttcga actgt 405

<210> 11128
<211> 427
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F3

<400> 11128

accttggcat gaattggcaa gcataacaaa atgttgcccc caatgcaatg tggtgcctgc 60
cagttagaac aaaacgcctt tgccttgga agggaaactt catattggct gcaaaaccca 120
acctaagagg cggccggcag gagctgcaga agcagcacac accaacagca agccgaggca 180
acttgggaag cggaggcggc aataatgact tgctgaccac ggggcagtct gccaaagcat 240
aatcccatt cttctcataa gctatagcca tgaccaaaga cgacatcgca acgtgcccct 300
ccctcctatg cctcaaactg tgtaccagcg agagactgta ccagtgtaga gaagcccttg 360
cgaaactatt atttagttag aaggctgatt gctgatgaac attgatttta actataaaca 420
tatatat 427

<210> 11129
<211> 445
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F4

<400> 11129

gtcgacgcc tcctctaaaa tggctatggg gaaatttga aaggggacaa gtcattccaa 60
ggggtccccg agacgtgga gttgctgcga aaattgggca agaaattagt ttttgtaaca 120

aacaattcta ggaagtcgag aacgcagtat tcaaagaaat tcaaaacact tggccttgaa 180
gttccccgagg aagagatctt cacgtcatca tttgcagcag ccatgttctt gaagttaaata 240
aattttttctc cagaaaagaa ggtttatgtt gttggtgagg atggcatttt ggacgagctc 300
aagttacctg gctttgaatg ttttggtggt ccagaggatg gcaagaaaaa cataatgttg 360
gaggcaaaact tctacttcga ccacgacaaa agtggttgag ctgtcgttgt tggacttgat 420
cagtacttca actattacaa aatgc 445

<210> 11130
<211> 225
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-F9

<400> 11130

tccgggtgca caagatcctg cagacgcac gaatccacaa cactcgcttt gaggcgcact 60
tcatgatata tgggatgctt ggtaccactc gtggcctata ttcaacggct ggggtgcaaca 120
gttgcggtaa tcaatgaggc gattctggtg cacgcgggtg tgtttgacac tcagttcagt 180
tgaggcagcc ggtaatgttg ttgcggatcc atgtcaagct cgatg 225

<210> 11131
<211> 403
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-031-Q1-E1-G11

<400> 11131

gggtccactc ccacagcaaa agatagtcac catctcatca aaacatcggg acaccttcgc 60
ctctatcaag tggtatcaga ttcccagggt gtcggtgag attttacagt tttttgtagt 120
ttagatcgag tctgttcttc atacctatag tccacgaaaa agccgaaaaa attagtgtta 180
gttcatecca tccgaaccaa tctgagactt tgcataatct tttctgtatc tgctttgttg 240
aatttgcggt cgcacgtcg tgtcaagttg ctggtcttag catctagtcc tttagagttt 300
cgagttctgt tcacaggttg tcacgtcgcc ggtgccatat atcaccaccg catcatcatc 360
atcgttgctg ccatatacca ccaccgcgcc aacttcatca ccg 403

<210> 11132
 <211> 449
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-031-Q1-E1-G12

 <400> 11132

cgctgcccgt tattggtccg agcatcncgg gtcaacatgt tccgataatg taaaagttca 60
 gcaattggac acaattgcaa tcgagtaata atgcttgacg ttgcaactgt agatatggac 120
 atgcaactgg cctataaaaa ttgtaccggc ccttggttgca gtcacattga gggacatgta 180
 gttgtagttg ggttgcaaca cttgtggttg caagtccaat ggtggacata ataacacccc 240
 ctattggcct aattgcagct tcattggggc catgcaattg cagtcggggtt acaaacactt 300
 atagttgcaa ttctaagtag gttgacgtat aactagctga caacccccgt ttggaccag 360
 ttgtagttgc attggggcat gaacttgacg tcggggttgca attcttgcaa ttacaagtct 420
 agtgatgggc atgcaactgg caacaacca 449

<210> 11133
 <211> 410
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-031-Q1-E1-G2

 <400> 11133

actaaaatga gtcggatgat atgcacatca ttggtaaaat tccttacctg caccataaat 60
 cagggcgatg ggctcgtgcca aggcgatcga caacgcagct ctagaaaaaa ttccggcgct 120
 atgggatgaa tttggtgttc taaagaaaga tagtgcccag atgcaaaatc aagtgtccaa 180
 gctgcaagaa gatgtacaag ccattagtgc caagcaagga gagattccag caactgttgg 240
 aatagtggaa caggtagtgc tggatttggg taagcaatta tcaggcatca ataattgtct 300
 cctgacatta gtgaaatcaa ctgagcaagg gctgcaagct gatcaccctt ccagttctcg 360
 tgaagtggcc agatctccta ctcttcatca agagcaaaca caagaacaag 410

<210> 11134
 <211> 164

<212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-031-Q1-E1-G3
 <400> 11134
 tgggtcaagat ggccgagctc aatggccata cttcccgtgt cctcttcatg gctcaaagcc 60
 ctgatggttg cacngtggca tccgctgcag cagacgagac cctgcgcttt tggaatgtgt 120
 ttctgatgc tccgaagtct gcattgaaag agaagacttc acag 164

<210> 11135
 <211> 354
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-031-Q1-E1-G4
 <400> 11135
 gtgtcgtcaa gctgtcattg ttggaatttg tttctctctc gttcttcttg ttttatcttt 60
 atgcttcatt tgttggtcac cccagcaata cggatgatgat tgctttgtaa tacaaagtgg 120
 gaggaacccc tattttgaaa gaatggcttg cctggtcacc gtccgctcgag gcgagagatt 180
 agcttggtccc gagagctcaa aatcgaaagc ctaggcatgc gcctggtgca gcctggatgc 240
 tactcggtcg tttcaaaaag aaggaactta tagatgagga gcgaggtgca accaaaaagc 300
 tgcgtcccg tccgacaagat gaaccggcaa ctccttgctn ctgggcgaca caga 354

<210> 11136
 <211> 426
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-031-Q1-E1-H1
 <400> 11136
 taaaatgagt cgtagtatac attctcaa atgcattatcaa gcccggtccg caggagcctc 60
 cagacgtatc acttaacca aggtgctggt aatggacgac ggaacactga agcaaactca 120
 gccgggcaaa accgagaggc caactctgca agctccaatg acacctccat ggacatggtt 180
 tcagacagcg caggaaatgg gtactactaa gtcagtttgt ggaaacatgt tgcatgcaca 240

accaggaagc gtcgagtgcc agtattttct ctgggttttg tatgttatgt atttttccta 300
aagctcatgc actgtgtggc tttatagtgg cacacctggc aattcactta aaagttattg 360
gatttggttt gttttgttca agcctgtttg gagagaaatc tatatgtatg cctgggtcat 420
gtcttg 426

<210> 11137
<211> 336
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-031-Q1-E1-H10
<400> 11137

ccgggtcaca tctttcagca aactgatgg ttacaacttc acgtctcttc atgatcagct 60
tcagctgtaa tttgggtcca gcctatgcaa ccgaaacttc aacttgcaag ttgtccatgt 120
atatggctag tcaagccata gtatatacct atatttgtca ggctgatcat gctagagagt 180
aaactacgat caaatagtcg gtttcatgta accaatttat ccagcatatc ctatggagta 240
agtacaaaa atattatttc agacaattat tggaagatct caaacttctg aagaaaatgc 300
tgttaaacct tctcagctaa tatcttattg tttccc 336

<210> 11138
<211> 381
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-031-Q1-E1-H11
<400> 11138

gggtccactc catttaatgc gatatttttg tactactctt ttgcaaacac tcttagctcc 60
ttgagcatcc atggcaacca tgatgggtgac attgtggaaa ctgccaaacat aactagaatg 120
gcaactgcc aacataacgag atggcaactg ccaacataac tagatggcaa ctgccaaacat 180
aactagtgg caactaacag aaatacatgg caactcttct ctttcttcat gccctccaac 240
ttgatgattg aaggaacata cgttaccttc ttttttgcaa aataccatga tggcacctga 300
ttttttttat tttaaaattg ttgtacatca gcacatttac gtcgatcgtc gtgatcaacc 360
cactgtggac tttactgaga t 381

<210> 11139
 <211> 361
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-031-Q1-E1-H12

 <400> 11139

```

cgggtcgacg ccgtcgagaa aacgcctgct gcgggacttc aagcggctgc agcatgaccc 60
accggccggg atcagcggcg cgccgcacga caacaacatc atgctctgga acgccgtcat 120
cttcgggccg gatgatacgc catgggacgg aggcacgttc aagcttacct tgcagtttac 180
agaagattac cccaacaagc cgccaactgt tcgttttgtc tctaggatgt ttcacccaaa 240
tatttatgca gatgggagca tctgcttgga tattctacag aatcagtgga gccctatata 300
tgacgttgct gccatattga cttctattca gtccttgctg tgtgatccna aaccctaactc 360
t                                                                 361
  
```

<210> 11140
 <211> 391
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-031-Q1-E1-H3

 <400> 11140

```

ttacccccctt gtgggatggt caattttgca cctgcttgta tgacatggga gctggctgag 60
tcgggagtac attttatcac tacagtcac aatggagctg atttggtgcc aacattttcg 120
gcagcggcag tagatgatct tcgttcagag gtgacggcat ctgcctggct gaatgatctc 180
cgtcacaaaa tcgagcaaac tagaatcctg agcactttct atcgatctgc atctgccttg 240
ggatcgcgac ttccttctat ggcaaagtct aaagctagag tagctggtgc tggtgccatc 300
ctaagacctg tatctaattg gacacagggt gtaatgagga gagctcacag tgtagcacia 360
gcagcgtgga caagaccggg gctacaacta t                                                                 391
  
```

<210> 11141
 <211> 411
 <212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-031-Q1-E1-H4

<400> 11141

gtcgaaggcc gaggatacag tgtaaagggg gtagtaacac aatcccaa at ggaattttca 60

aacctaagga acttaaggat ggtacggttg cttgggtggc tgcttggttg gctgctgctg 120

ttgcggatcc atcttctgag cctcgtcat atcaggtgc cccgcgcatt ccacattggc 180

gagaggctat ggagcaagag tttcatgctc tccttcgtaa caagacatgg actctcattc 240

ctccccacc acgggtaaat attattgact caaaatgggt attcaaagt aagaagcatt 300

cggatggatc tattgagcgt taaaagcgc gacttggtgc tcgcggtttt cggcagcgcc 360

atggtcttga ctatgaggac accttcagtc ctgctgtaa gcctaact a 411

<210> 11142

<211> 410

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-031-Q1-E1-H6

<400> 11142

gtctctcgt cactcaaaaa aaatattcct tggatctcct tcgacgtgcg ggaatgctga 60

agtgtaaatc tggttggttg cttcttactc ctgatgatgc tacagagtat cgcagtattg 120

ttggtggcct acaatacctc actatcactc gaccggatct ttcctttgca gttaaccgtt 180

tctgggaatt acctcaaggc ctttcttgac acacattggt ctgcatttaa gcacattctg 240

cattgcgttc gtctcactgt cttttttggt ttacaccttc ggcttgcttc gtctatggtg 300

ttgtctgcct tttctgacgc ggattgggca aggagtccgg atgataggcg atccacgggg 360

ggatatgccg tgttcttttg tccaaatttg atcgctgga atgctcgaaa 410

<210> 11143

<211> 432

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-031-Q1-E1-H8

<400> 11143

cgatacactc taaagggggt cgtattacct tgtcacatgg gccaccccaa gactgagtga 60
agataagggtt aggcaatgtg ttgactcaag acttggaggg gactatcctc ctaaggctgt 120
tgcaaagttt gcagccgtcg ctgcattgtg cgtccaatac gaagccgact tccggccaaa 180
catgagcatc gtcgtcaagg cgctccaacc cctgctgaac gcgcgagcag cccaccccg 240
ggctgaacac gctggacgct aagctgcact ccggcctttt gtatgatata atagataagg 300
aaaaatgagc catcaattgt tgttcttgcg gggcatgtgg caggcggttt ttgtacattt 360
gtgattaatc ttcccaagtt gtaaccctcg agattctagt accagaaata tttgattctt 420
tgtatccggt gc 432

<210> 11144
<211> 317
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-031-Q1-E1-H9
<400> 11144

tccgggtcca cggcggagat gaaaacgcga tggcgtccgg gtggggcatc agcgggaaca 60
atgggcggtg ctacgacttc tggctggcct tcagctcgtg catgggccgc tgccgctagg 120
cctccgactg caggctcctc cgcgaggact agctctagt actccatgac tccaaggagt 180
tccaaagcat gaacaggatc tacaaggagg accatcgtea gtcaagatct gctgctcgca 240
aggccaacga cgaagcccta ggaactcctg ctgttgacgc tcaccactat catccatttt 300
cgattttttt catatgc 317

<210> 11145
<211> 439
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-032-Q1-E1-A1
<400> 11145

cgcggttcga cgatgctcac gacaatgatg catatgcagg tgggattgga cgcaagaac 60
gagctctgtg caagctgcat ggattatcat ctagcatgac gatgacctgc cgctgggagc 120
agtcgagacc ggaccaaagt gccagcggg cctgtcccc tgaaccggac cggcgaggcg 180

aaagctcggg caggggtgagg gatctagcga tggcgagggg ggcgtagctg cgtgtgtgtg 240
 tgtgtgtgtg tgtgtgttgt gcctttgtgc gtgcccagag tggttgcgtg cgtttgtgcc 300
 atgccctatc ctaaagagca aatcctccgg atgcttggtg cagacaaaga ggcagtccat 360
 ctatggtagc atctcatctt ggggaactct gccgccggc ggcactgtca ccacatacta 420
 ctatgtacgt acatcggtg 439

<210> 11146
 <211> 437
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-A12

<400> 11146

gcggtcgac acgccaccct agattcagtc gtataagcaa tacaactacc accagcaagc 60
 aaactctctt ggggcatgct gatggcagga aacatagggc aaaagcaaaa gcctttcatg 120
 cttctcagaa gcaagaaaat ggagctgaac aaactccaag cgacaaggaa actggtggag 180
 caccaacaac agcatctaca gaactaaatg acgggaaggg tgctgacagt gaaagagatg 240
 ctgacgagga cgttgtgacg agaaagagaa cagatagcac aacctcggag gagccagata 300
 atgcaaaaag acaaaattta tcgaacttga agactgggtg ggcgacacaa tctgaaaatg 360
 gagaagcggg actcaaaaca cagagcaaaa gtgctgcaga agaactggtc aatgatgcca 420
 atcatcaaga tattaag 437

<210> 11147
 <211> 442
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-A3

<400> 11147

cggcgtcaac gccagcgcca cactctcaa gagtcttaa gcctcactcc tctccttcca 60
 ccactctcc acacacacca tctctgtcag acatggcgcc ttccgcgacc tgccgtctcc 120
 actccatggc atccgtctcc cgcgtctcc gcccgcgccc gcgtctcgcc gctcctcgtc 180
 tcggatgcgg actgagagtt ggatgctctg tgccagcata tggaagtgt gccacggaga 240

aggcctagtg gggattggcc attgcgccct cacgagcgac cactcttggt ccggttggtca 300
ggagccgtca aattttctgc aacgcagaag cttacatttc tagtaacctg ccagcgagca 360
agcctactgg agcaagccag tacgagaaaa tcgttgcgct actcactact cttttccctg 420
tctgggtcat attacgtaca gt 442

<210> 11148
<211> 403
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-A8

<400> 11148
attcgccggt cgacacctga atctcgggac gagattctgt caagtggggg cgagttgtca 60
catccctagt ctggtatgac ctaggctagc tagctatttg tgcatacat ttaaatttca 120
tttaaatttg aaatgaggat tgggtgaacc ctcagaatca tttttgaaaa tgacccaaat 180
aaaaatttct ccaaaatggt ccaagaagat gctcatgttg ccctctgacc atattggaca 240
gagatagaaa tccatgcaat attttttagga gctcatggac atttactttg gccatttgga 300
caaattcgat aaatatttgc attggtaata taattctata tatatgaaat atggcccaca 360
ccttatgccca tttatcaaat agctctggaa taatatatcc agc 403

<210> 11149
<211> 439
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-A9

<400> 11149
gggtcgacgt tcacataaca ccactagagg ctagacaaca tacatctcat caaaatatcg 60
aacgaatacc caattcacat gactactaat agcaagactt ctcccttgtc ctcagaaaca 120
aatgtaacta ctcacaaagc atattcatgt tcataatcag aggggtaata atgtgaataa 180
aggatctgaa catacgatct tccaccaa ataaaccaacta gcatcaacta caaggagtaa 240
tcaacactac tagcaacctc ctagcaccaa tcctggactt ggggacaaga attggatata 300
agagattaac tagggtttgg agatgagatg gtgctggtga agatggttgg ggagattgcc 360

ctctcccgat gagaggagcg ttggtgatga cgatggtgat gatttcccc tccgggaggg 420
aagtgtccgc gacagaata 439

<210> 11150
<211> 412
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B1

<400> 11150

gatcatggtg cggtcaaga aactcagcta tgggcacttc gacaagagca ctatgacccg 60
tgctcgtcgc gcagaaggtc tgcgtagaag gtctgcgtca gggatatacat ggggtgcacc 120
accagccagc tcgacgagct cgcgcgcgag accgcgcgcg cactcaccgc ctcccagcct 180
gactatgcct ctcttgccgc gaggattgtt gtgtccaacc tgccgccaag tggaaatagt 240
ctgtgtggcg ctcataaata aagagcattc ttgtagaaag ctgagggacg aggttcgtaa 300
ccgagagtca tgtgcagagc tggaggaaga agttgcgagg cttggaactc tccttgtgaa 360
aggctcaagg acagcagtga ggacaatgcc tcttttagttg taattgtgat ac 412

<210> 11151
<211> 446
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B2

<400> 11151

gggtcgactc caccaaactg atagatatca tctcatccaa agatcgggac acctttgcct 60
ctatcaagtg gtatcagttt tcaggttgct cggtgagaat ttccagtttc gcctagatta 120
gatttatattt cttacctatt gtccaagaaa aagccacaaa aaagttagat ctattcatcc 180
ttttgtccaa gccagtctga gcctttgcaa ttttctattc attgcttgca tgattgaatt 240
atcggttgca tcacgtgtc gagttgctgg tcttatggtc tagttcgttt agagtttcga 300
gttctgttca cattagtcac gtgcgcgtg catcgttatc ccttctgctg tccaacacac 360
catccatcaa attccaccac gtgctacca tagttcattg tcacaatcat agttgaggtc 420
gttcacatct tcgcttgatc caatct 446

<210> 11152
 <211> 439
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B3

<400> 11152

```

gggtccacgc acagaaggga attgagactt tatctatttc acttataatt tgaatttgaa   60
ttcaaagtgg aatttgatat cagatatggc tcaaagggtga ccaagcactg ttagcaaaa  120
tgaattagct taattaaaga gggttactgt acctcattac ataggggtgt tacacctcca  180
caaccttatt cgcgctcagc agcactgcag cataaacctt agctctcttc tcaactcttc  240
acttccactt ccatggcatg gccgtacaac attactgttc gtgaaatgga acttctcacc  300
atgtgtgata tcccggcgcc actggacacg cgctgtcag tgggatggat tctgagtgtc  360
gaggtcttct tgtggtgect actccccatc ggtatcggtg cctttgcgca cctcgtttgt  420
atgtttcggg cacgtctga                                           439
  
```

<210> 11153
 <211> 450
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B4

<400> 11153

```

gggtccactc cataaacgga attgagagcc ggtctgtgaa aaaatgggca tctgcatcca   60
gcagctcaag caacagcatt tcattgggca cttacagttc ttttcatatc tatggcacca  120
tagatactga cagctgggtg aggccacacc tgcagcatga tggctcatgt ttgctgctgc  180
aagcatacga tgatgacatt gacaaaatct gctatgtgat gaatgacctc gcacgtggtg  240
gtgtcgatgg ctctgctgat cgtatcatgg atgacacgcc ttactcgaat ggcattccatg  300
atttcatgat ttgcccagca ggcaagaatg gggagatcaa gaagcagcta accatctatc  360
aagaactcga gcagtacttc tcaaaactca tgctttagcg tgaccgtaac agacaatttg  420
ctgccttgga aatgttgaaa aatgttctgc                                           450
  
```

<210> 11154

<211> 427
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-032-Q1-E1-C11

 <400> 11154

```

gggtcgacac tccacgacac agtcatcaga cttaaattct ttcgcatcca gtcggagttt   60
gcggaaatca tctatcaaga tgtccttcgt acctcggggc aattctacct cagaaatcaa  120
ctgtccaaca gtgacatcga cacaatgcta cgaatgcagg ctgacaacga ccgttatttc  180
atgactccca cgatagacgg eggcttcac cacgctccgg tcccttgagt cgagtcgaaa  240
gaagtgatga tgtgtctagt tctgaaacat cgattggctc atgttgtaat taaactttaa  300
tgaacttgta gtatgcctct ttggtttcga gagtcgttca acttagatgt aatcgatgct  360
attaatgtct tgctttttctc ttccgatcgt tctgttgcat acttatatat tgcttatgta  420
ttgtctg                                     427
  
```

<210> 11155
 <211> 396
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-032-Q1-E1-C12

 <400> 11155

```

tttgggtgct agtgtttcca cgattccaaa aactttgtgt aatgtgctag gtttccgtca   60
atattgatgat tgttctttga atttgcactc cgcggattcc accattaaga aacctatggg  120
aaggattaat gatgttctta ttgttgcaaa taggaatttt ctgccatac attttattgt  180
ccttgatata gatttcaatc cgacatgtcc tattattctt ggtagacctt tccttagaac  240
ggttggtgca attattgata tgaaagaagg aaatattata ttacaatttc cattaaggaa  300
agggcatggaa cactttccta ggaagaaaat taaattacct tatgaatcta ttatgagagt  360
cacttatgga ttgcatacca aagatgacaa taccta                                     396
  
```

<210> 11156
 <211> 425
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-C3

<400> 11156

ggtcacccga gagccacgtc acgagcgcaa cttcaacggt tgctacaaaa agtaatggtg 60
cccgccgtgc ctcgtggcgc atcatttcct ccatcgagca gaatgaagag agccgtggca 120
atgaggaccg tgtcacactc atcaaggact accgtggaaa gattgaggtt gagctcacta 180
agatctgtga tgggtatcctc aagcttcttg attcccacct tgtcccctca tccactgctc 240
cagagtccaa ggtcttctac ctaaagatga acggtgatta ctacaggtac cttgcggagt 300
tcaagagtgg aactgagagg aaggatgctg ctgagaacac catggtggca taaaaagctg 360
ctcaggagat tgcactgaaa gagctgcccc cgactcatcc tattaggctt gggctggcac 420
tcaac 425

<210> 11157

<211> 450

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-D1

<400> 11157

gggtcgactt tgcattttt ggcatcaata ttatgaatac tagatgatat ctacgcatt 60
gctgcgggaa ctcttgggtca tatgcacaag gtaatacata aatggaataa ctttgtttac 120
atgatagata tatgatctta agatgaaaac agtgcaattg acacaatatt gggaataagt 180
aatcccgtat gacttgcata agatgagcac caagatccaa atccatgtgg ttgaagacaa 240
caaacacatg caagcaacta atcaaaaatg atataagata ttcttctgac atacttgctt 300
agtgatgatt gttttttcat ctattaaagc cactggataa tggagctcac atgagaatat 360
tcatgaaaag gactaatattt atttatgcaa attggtgaaga acatgattta atattatgca 420
ttccatttgt tattttacca gaaatttgct 450

<210> 11158

<211> 401

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-D12

<400> 11158

actcgcgggt cgacagtaca ctggataatg agtcgtatta cacgcgggtc gatctgacat 60
acaggtcgag gagaacaatg tgtgctgcc a ctgcgagcat gcatgaacca gtcaaagatc 120
tgtcggcagc atgtaatgaa tgaagtcac agatgtccaa cactagcatg catggaagga 180
agccatgatc ttagcatgct tttatcttgc gtctgattaa aactctgggtg tatcaatatg 240
ctgctgcttt ggtgttacct tggattcaac ttctgacaag agctctgatg catgaacatg 300
ttactgactt tgggtgccatt ttcagttcat gcttcttctt aaatgttcga gtgttctcct 360
tcttgacgtg gattttcgtt ctgtatgata cctgctgagt g 401

<210> 11159

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-D2

<400> 11159

gggtccacgt cctccagcct ccacctgtga ctgttcatcc acggggtcct gttcatccag 60
cctccaccgc acgctaatac accgggtact gttcaaccag ccttctccac gagtcctgt 120
tcaaccaccc ctccacgggc tactgttcat cctgccctcc accatctact gttcatcctg 180
ccctccacgg ggtggctctg ttcattcagc cctccacggg gtctgttca tccagcccca 240
accgggtcga tcgatcgagg tctgttcat ccagaggcaa caccacgggg tcttgttcat 300
ccacccccac caggaactgt tcatccaaac cccccgaac gctcactgtt catccagagg 360
tagcatcgat cggcttcagt tagcagcagt agccaaggaa tcgctcgatc gggttcagtt 420
aacagccatc gatcgatcgc tcgggttc 448

<210> 11160

<211> 455

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-032-Q1-E1-D4

<400> 11160

cgggtcgaca catggactaa aatccttgcg gccaaaaagc ataaactcaa acgccccccc 60

gaaagctacc caaaccgcag gttgttacct tgattagagg aggaagcact tgacgcggcc 120
gaccggccac ctctgtggccg cgacagagag gcctgtcggc cctccactta agccgcaccc 180
cgtaccaagg tacgggaata tgcgccggac ttacgagata tggtggagga caaggcaagg 240
caaacaagat cgatctacgg atcacgtggg cgcggccacgg ctcgagacgg taaccgtcac 300
gccggccacg aattcggcag ggccgaacac agtagacaaa gctcattgga gctacgtcgt 360
gatatagccc agtacagagg cgccgcacac ccactatgct tcacagacga nataatggat 420
catcaaatcc ccgagggttt caaaccgcta aacat 455

<210> 11161
<211> 449
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-E1

<400> 11161

gggtcgacct tcatacaggg acttgtagat acccgtgccg ttgctatggc tttatgtggc 60
aagggcatcc acgtgatcat gaatcgtaag aaagagtatg acatgctcaa gtcacagatg 120
ccagagaaca gagcaagcta cttgaagtgc tccagcaatg acataaccaa gatttggcta 180
gtatagagga tcgacgacaa agaacagagg atggcaccaa aaggaacagt gtctgttcca 240
atatcgagct tcccccttaa gaaagtccgc aaggactgca cttacttgag cactccggcg 300
atgaagatcc cggacactat gcagaacatc cactcctgcg agaactgggt gccgagaagg 360
gtgatgagcg cgtggcatat cgccggaata cttcatgtcc tggaaggggt gagcgagcac 420
gagtgcggtg agcacatgat ggactctga 449

<210> 11162
<211> 451
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-E11

<400> 11162

cacaagtccg agactcgcgg gtcgacgata cccgatattc ttacacttct tacgaatcgg 60
aacatcagaa gataagcttg cggtaatgtt gtaaagtgtt ggcatcggac tggttggaa 120

tttggatcgg cagagagcta gaggcctcgg tgctctggag gatgttaa at ttgagaacgc 180
 aaattgttgt caaataactt tgcttctctc atttgaagaa tttagtattg ttgggagcct 240
 ttgggcaagc tgttatctct tatctgaagt tcccattttc tcctctcccc ctttttggtt 300
 tttgcctggg tagcgatcag gtccaatcct ctgggaattc tcctgtgtgt acaaaaatgg 360
 aaacagcctt ggcattgttt gttatctttt gctgggaagt ttctccatcg ctttgcaatc 420
 tatagtgaag tggagcagaa aatggattgg a 451

<210> 11163
 <211> 449
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-032-Q1-E1-E3
 <400> 11163

cgggtccaca cattacgcta tagtgatcgc tcatatgaat gttgatgcat gtttcaaata 60
 cttctgggag tagtagatta tatctgtcct gccatatcat gttattagca tagaaaagtc 120
 agttttgctc catgtactta tggttatcta aaaaggctag tagcatttgt aagtgtgtgt 180
 ttagttccta ccttcagaat atttttgtgt agactatggt cttgaccaca tcctccttgt 240
 tgttagttca tttgctatat aaaagaaaat aacagggtgtg atcaagtcaa taggatatta 300
 cttgcgagtg ttttttctaa gtattccctt tctcttatgt ttctcatgaa ctccttgagc 360
 tttatgtgga aactcgggc aacaatatca gacctttctc ctgcacaaaa aaaaaaaaaa 420
 aaaaaaaaaa aaaaaaaagc ggccgctct 449

<210> 11164
 <211> 453
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-032-Q1-E1-E4
 <400> 11164

gggctcgacga agctgaatta ctattgaata atatgttgat taatgaaaat aatttgactc 60
 ttcttgagcc agttcctgag gcaattcctg aaccaattga ggcaactcct gagcctattc 120
 ctaaaccac tccaaagaag agagggtgtt tattttctcag tcctgaagat atgcaagagg 180

caaagaaatc aatgaaagaa aaaggtatta aagctgaaga tgtaagaat ttaccaccta 240
 ttgaagaaat acatggtctt aatataccgc ctattgaaga accacattgt cttgataact 300
 cgacacaggt agtaaaggta aattctctct atagatatga taaagttgaa atcccctcta 360
 ctaaatttca tagcccatgc ttagatgaat ttgatgactt tatggctaga caagaaagtt 420
 ttaatgcttg tgttggtaga gagttaaaga ata 453

<210> 11165
 <211> 432
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-E9

<400> 11165

gggtcgacac ccttactgaa aagagaccag aggagctggt ggattcattc ctagaagatt 60
 tcaaggccaa tttgatagag gcacatgggt ggccgaccgg tggctcgtca gcgtacaaag 120
 tcgccaaagc tgccctcaat gcttacacaa ggattctcgc caagaagtac cctaggatgc 180
 gcatcaactg tttgacgctt ggttatgtca agagcgacat gtcgatgcac atgggagttt 240
 tgacgcctga ggagggcgct agcaaccggt tgaaggctgc tctcttgccc gacgatggcc 300
 cgacgggtgc ttattttgat agggatggcg tggcctcgtt tgtgtgactc tgtcgtacgt 360
 gtaatggttt cgtccggttt tactttcaga atatgagaca cctgtaactg tagttgtcaa 420
 taaccattgt gc 432

<210> 11166
 <211> 447
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-F3

<400> 11166

cgggtcgaca tcaaaccata tactcatgcc aagcatgcga tgaatgagat caatgcagct 60
 gcaaaggata aggggtggctg caaacgagaa tgcggccgct gagaagattg tccagatcaa 120
 gcgtgccgag ggtgaagcag aggccaagta cctgtctggc ctcggtatcg cccgccagcg 180
 ccaggccatt gtggatggcc tgaggggcaa cgtcctgggc ttctcagtca atgtgcctgg 240

caccactgca aacgatgtga tggacatggt gctgatcacc cagtacttcg atactatgaa 300
agagattggc ggcgtctcca agtcctcggc ggtgttcac ccccatggcc ctgggtgcgg 360
gcgcgacatc gccacgcaga tccgtgacgg tcttcttcaa ggccagtctg cctctgacaa 420
ctagcagttt gcttcgccgg catgaac 447

<210> 11167
<211> 431
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-F4

<400> 11167

gggtcgacac tagcgggacg atcgttggga tcaaatacaa agatggaatt gtccttgggtg 60
tggagaagct gataacctca aagatgatac ttgccgggtc gaaccggaga cttcattctg 120
tgcaccggaa ctctggcttg gctgtggctg gattagcagc agacggtagg cagatagtct 180
caagagcaaa gtcagaagca gccattatg aaaaggatata cggagaacct atgcctgtaa 240
aggaattagc tgatcgcggt gctagctatg ttcatctgtg tacactctac tgggtggctca 300
ggccttttgg ccgtggagtt attcttggag gctatgatag ggatgggcca cagctctaca 360
tgatcgaacc ttcaggcctc tcctataaat attttgggtgc tgctctgggt aaaggaagac 420
aagctgcaaa g 431

<210> 11168
<211> 415
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-F5

<400> 11168

tcgcgggtcg acagccatgt taatttagtt tcgtcgatca gttaggccat taatttcgat 60
tagtcgtgag atattttgta atcgagattg aaccatgttt gagtggaatg aataaatgat 120
tgggtgtgatt atgattgtgc agtcatatgg gtagtgatat tttctcaata gaccattggt 180
ctattctaata tttctcatcc actccaaaac accagatgcc tccgagacgt gaccccggtc 240
tcaacttccc gccggagctc acccagctga tccagcagca gaatgcctc atgcagatgc 300

tcatctagaa ccagaacaac aagaacaacg atccaccgcc accaccccct gttgacaact 360
 tgactcgatt cctaaggctg aatccgctag tgttctctag cagcactgat acgat 415

<210> 11169
 <211> 436
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-G12

<400> 11169

cccggtcga caccagagaa ggggctcatg ctcttgctaa acttgtttct agaagttggg 60
 cgagtggcta ggggttagtgc atgatatcat atgtatttca gacactttga ttcttaaata 120
 aagtccttag ttacccttta aagtatatac gtgaggcata gccgcgcctg ttagttggag 180
 ctaaaggaac tgtagaggag gtttatgagg aaccgtccca gtgatgtttt cgccaaaaat 240
 aacgccccag taatgttaaa gatttgtttt ttaagcaaca gtgatgatcg cttcactact 300
 tcttataaaa caacagagtt ggtgatgatg gtgtgcctgc catcttgcaa tatatgccgt 360
 ctgatctata tctgacggtt aggaaggaaa atatgacaat tttgcaaaaa aatatctgca 420
 ctctctcca catttg 436

<210> 11170
 <211> 445
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-G2

<400> 11170

gggtcgactt tcccgtattg taataagtga cgcacatgca acacgtcact tgtcgcaacc 60
 ggcgagtttt cccttttttc gtagattcgt ttattcaaaa aaaattatct cttaaactgt 120
 gctccaaatc ttgaaccggt ttcaccattg gattccttgc gtcaagatct tcaaaactag 180
 atcccatggt gatagatttt aacgaacttt tttccacaa aaaaccgaaa aaattgaacc 240
 agtagcacgt ttttttctct ttccgaatga ggcacaccgc cgctctctgc gacatcacia 300
 ccgtgcctct cgtgaaagca aatccgtgac tctcgtggaa gaaaaaaaac agaaaacacg 360
 ttttttttcg tttccgagag gtacggccgt gactctcgcg aaagcacaac cgtgcctctc 420

gcgaaagcaa aaccgtgact ctgcg

445

<210> 11171
<211> 452
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-032-Q1-E1-G4

<400> 11171

cggggtcgacg ttcacataac accactagag gaaaagacan catacatctc atcaaaatat 60
caaacgaata ccaagttcac atgactacta atagcaagac ttcacccatg tcctcaggaa 120
caaacgtaac cactcacaaa gcatattcat gttcataatc agaggagtaa taatfatgcat 180
aaaggatctg aacatatgat cttccaccaa gtaaataaat tagcatcaaa tcatgcaagt 240
tagagtccaa aacaagggca aaagtgtttg gaaaagtaga tacttggaga cgtatcaact 300
ccccaagct taaaccttac cttgtcttca agcaattcag ttgataaact gaaagtgata 360
aagaacaact ttataaaact ctgtttgctc ttgttattgt aaacatgaaa tgccagcatt 420
caagtttttag caaatattat gaactaacca ta 452

<210> 11172
<211> 411
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-G6

<400> 11172

ggggtgcttc tacatctggt ctccctcagc ccgctgttgc tgcaaccag ccttgggttc 60
tggactctgg agcttctttc catgtgacct ctgatcactc tcagcttgtg tcttgccagc 120
cagtgcggga tgggtgcctct gttcagactg ctgatggtac accttgttct gttactcatc 180
agggttctct ttgcacatcc aagttttctg ttcttgccat ctcttttgc ttagagctgt 240
ccatgaatct tatgtctatt ggccagcttg ctgatatgaa ctactttggt gggtttgatg 300
actcattttg ttatgtgcag gaccgtcaga gcaagagggt cattggaact ggccatcgcc 360
gtagaggatt cacatccctc tacatccttg acaccttaca ccttccttca g 411

<210> 11173
 <211> 371
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-G7

<400> 11173

aagagcatgg cttcatgaga gagagttacc tgaacgacgg tatgagtaca aatatgtatt 60
 ggatggcaac tgggtgtgca ctgagcatga tatgatcacc aaaccaatg cggactgcca 120
 tgtgaataac tacatccaag ttgccaagga tggtagcagc gatgaataga ctgcgatgca 180
 ggagcgggtg actgggccat accccgatcc agcacaagac gacacgctga tcactaaaga 240
 ttacctggaa cagtacaccg agcaataaga gaacttcctt tttggtgcga ccggctcgag 300
 atgcagccgg gaacacctat tgatgaaatg aaatgaaact agactacgca tctctgaaac 360
 gctgctgtgc t 371

<210> 11174
 <211> 425
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-G9

<400> 11174

ctcgcgggtc gacggtgggc actagctcaa gtcgatgcac tgctaccact ctttccatca 60
 gcgatgcac ttcgactggc ttgccttaa ccgcatctgc cctgtctgcc gcttcgcgct 120
 ggccccacag tcagacgacg acagcaacaa ggatctggga ctgcctgaga aagtcgaata 180
 gctcgacagt ttgccggaag ttgaattgaa gtgtgcagcc cttgcaagcc acgactgtgc 240
 tagcagggtg tattcatctt cttttctgtt atgttctgtt ttttattgga ttatcgatca 300
 aaagcttgta gtttgaacca aaattacttt tttcagcttg aaaacttagt agatcttctc 360
 tctgttatgt acaatacgag caaaatttca tctttatgca tcaaaccttc attttctcta 420
 agaat 425

<210> 11175
 <211> 388
 <212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-032-Q1-E1-H11

<400> 11175

```
cttgcacagc tgatcaatga gaagccacaa gtcattccagg agtacgagtc aggcaaggct   60
atcccaaacc aacagatcat cggcaagctg gaaagggctc ttggcacaaa gctgcgaggc  120
aagaagtgaa gctgcgtgca tctgacagga gtcgagtctt tcaagagggg agcttggtctg  180
ggcaagttta ccgctaaata aagcttgtct actaaatcat gcgacttaag aaaaccctgg  240
agtttggtat ttcgctttgg tttgggtgaa tgtaattatt agcttctgtg aacaactctg  300
tatctgggtt tcgtttcgtc agtgtgtcgt cgtgaatgtg aactcttctg aatgcctgaa  360
cctttatata acttgtctcc acanaana                                     388
```

<210> 11176

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-H2

<400> 11176

```
tgccccgtgca ggtaccagtc tagcgggtcg actccgagga gctcaccgtc gaggagcgca   60
accttctatc gggtgcttac aagaatgtta ttgggtgccc cgtgcctcg tggcgcatca  120
tttctcccat cgagcagaag gaagagagcc gtggcaatga ggaccgtgtc aactcatca  180
aggactaccg tggaaagatt gaggttgagc tactaagat ctgtgatggt atcctcaagc  240
ttcttgattc ccaccttgtc cctcatcca ctgctccaga gtccaaggtc ttctacctaa  300
agatgaaggg tgattactac aggtaccttg cggagttcaa gagtggaact gagaggaagg  360
atgctgctga gaacaccatg gtggcataca aagctgctca ggagattgca ctgaaagagc  420
tgcccccgac tcattctatt aggcttgggc tggcactcaa cttctcggtg t          471
```

<210> 11177

<211> 459

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-H4

<400> 11177

ccggtccaag actagcgggt cgaggtcgtc aaacacctga gctttgccga ctgcttggtt 60
tgtcacagaa gatgccaggt gtcattggag ttctggtgga tagtgcaaga ccaattgatg 120
caattaactt ggcctacgcg tttggactca ctgaacagtt tgagccagtg caattgctga 180
aagcatatct gagggaggtc aagaaggtgt cacatgccaa gaatggaaaa atgtctcctg 240
gagcacagaa tgagatgaat gagcgtgagc tgtctgcact gaaagctgtg atcaagtgcg 300
tcgaggagca caaactggag gagcaatatc cggtggaccc acttcagaaa agggtgattc 360
agctggagaa ggccaaggca gacaagagga gggctgtcga agccgccaag ccacagtcca 420
agaggccgcg tgccaacgga tcgctctaata gcacccgtg 459

<210> 11178

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-A3

<400> 11178

tcctaaggct caccggccact caaaaaacac cggaggtgcc tactactacg tgttgcccgc 60
tgacgatgac cagcagtagt taggaggatc ccaggcagga ggctgcgcc tctttcgatc 120
tgtatcccag tttgtgctaa ctttcttaag gaaaacttgt ttaagttagg tctgtactca 180
aatattgttg cttccgctga tccgtctatc atcgagctct tgtattcgag ccctcaaggc 240
ccctggcttg taaaaaatg cttgtacaac ttattttaat ttgtaaagtt gtgttgtaag 300
aacttctcct gggctccctga ttttgatcgt acacttttgc gtgtgataag aaaacggcca 360
aattaggggg atcatagttt tccaaaatca cccttggtgg aaaaaccttt t 411

<210> 11179

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-B1

<400> 11179

ttcacgggtc gaccccaaag aggctctcag gacaagcaag cgcgagatgt cagtcgccac 60

aagaggagtt gagcgagaga ttggctccct gcaaatggag gagaagaagc tggttgctga 120
gatcaagaac actgccaaaga ctggaaatga ggctgcaacc aaaattctag cccggcaact 180
agtcaggctt aggcaacaaa tcgtcaattt acaatgtaca cgggcgcaga tacgtggagt 240
agctactcac acacaggcaa tgtatgctgg aacttcaata tctgctggaa tgaaacgcgc 300
aagcaaagcg atggcagcaa tgaataagca attggaacca acgaagcaga tgaagcagat 360
tagagaattc cagaagcaat catctcaatt ggacatgacg cttgagatga tgtctgatgc 420
cattgatgaa acac 434

<210> 11180
<211> 300
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-B2

<400> 11180

gtccacagcc gccggacgat cgttgcatc aaatgcaaag atggaattgt ccttggtgtg 60
gagaagctga taacatcaaa gatgatactt gctgggtcaa agcggagact tcattccgtg 120
caccctaaact ctggcttggc tgtggctggg ttaccagcag acggtaggca catagtctca 180
agagcaaagt ctgaagcatc caattatgaa gaggtatacc gagaacccaa gcctgtaaag 240
gaattaactg attgtgttgc tagctatgtt caaccgtgta cactctactg gtggctcagg 300

<210> 11181
<211> 391
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-B3

<400> 11181

ggtccaccga aaggggaaat accgggcagg gaagtcgtga agaagctccc tcttatgttt 60
aattatagtt tttagttggt gaacttgtcc aacgatgaac tggggtgatc tattggatga 120
tataaaatgg gtttatgtgc atttcgttgt ccgtttgatg ttgatttctc cgttcgttgt 180
ttgatcacgt agagtagttc atcacgttgc atgcgtagta tggatatagg gtgccagata 240
tgatatacgc aaatatgaag agaaaaattt aaagtgtgac cagtcagtgc cagtggacac 300

gtccggacac gtccacaaaa gtttgaggag ttcgatttgc tgtctgcggt tgtaaagtct 360
cttaggaccc tgtgggagcc gtaagtgcac g 391

<210> 11182
<211> 389
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-B5

<400> 11182

gatggcaatg aggtgttctt tcgcatcaag agatctaccc agctgaagaa gctgatgaat 60
gcctactgcg accgccagtc tgtggatatg aaagctatcg cgttcctggt tgacggtcgc 120
aggctccgtg ccgagcagac cccagatgag cttgagatgg aagatggcga cgagatcgac 180
gccatgctcc accagactgg aggctgccgt ctccctccaa gcgcctacaa gaagccgtcg 240
aaagtcctgc tcgttgtcgg tctacaagac tctgatccat cagtaaagag cacatgaacg 300
aatgaaagtc taaaaaaaaac ttgtgaaggt ctggccccat gccatagctg aaggacatta 360
tgggggggctt ttgttttagtg ccgttttggg 389

<210> 11183
<211> 438
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-C2

<400> 11183

ttcacgggtc gacaacctct acatttcaca catccaggtg aaccaagccc aaaagcagag 60
gcgccgtaca taccgtgctc acggacgcat caatccttac atgtccaacc cctgccacat 120
tgagctgatc ttgtcagaga aggaagagcc tgtgaagaag gaggctgata acgtcgtcgc 180
accaaggaaa gctatctaag ctaccggaat ggatgcattc gtccaacagt cttagtgtga 240
gttctttctca agtacctttg ttggcagtggt ttgttgctc cttgatgttt ttgttaccaa 300
cattgagtaa ggatttggtta aggttgatgc taaccttgtg attgcgagtg gtctttatat 360
gctaaaacag tttcagatat ttgagcatta gcacaccaga acttatttct cagagatgct 420
ggtcctttcg ggctcttc 438

<210> 11184
 <211> 430
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-043-Q1-E1-C4

 <400> 11184

 gtccacaatg cccatgccac tgaagcgact aagaagcgac cgtgctcggc tgggttaagg 60
 cttgcactca aaaacgtgat gccaaagcctc gcggcagcct tcaccgagat cggcgccgag 120
 ggggtgtgaag agttccagtt gctgcaaatc aagttgccat gtgctctcag caccactcac 180
 tacacagagt agttgcggtg atacgataat ttgtgatcct ggtgggtgtg tgataatcat 240
 gcacattttt gtcctacaac aattagatac tcctttttgc ttttaattccc catcaggaga 300
 gatattgtcg tagagtaatc agttatctat caacatacat gtaaaggctg ggtagagatt 360
 tgtcaatgtg atacatcagt agaataaac ctatttttca gaaagaagat aatctacata 420
 tatagaagtg 430

<210> 11185
 <211> 251
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-043-Q1-E1-D3

 <400> 11185

 gtccacgtgc cctattatac aggaatctac tcgatctcca attgctgtgg gggggggggg 60
 gactatttgt atcatcccat cggtcgattc actgtcaagt gcgaaaatgt gtgcactttg 120
 tgatctctga cccttaccgg gaaagtctca cttgagtgtt ttgacgttgc gaaagtctct 180
 agcaatgagc gtatatctca ccaagcctgt gctgtcacta catctaaaga atgtccgtcg 240
 ctttgtcggg t 251

<210> 11186
 <211> 309
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-043-Q1-E1-E1

<400> 11186

gtccacatcg gcaggaacat catccatgga agcgactcag ttgagagtgc gaggaaggag 60
atcgccctgt ggttcctga gggcattgca gaggaggga gcagctagca caactggatc 120
tatgaggcct aagatgtgtc atgagtgggt gaggcaggt ttcattaagc atctaccaa 180
ctagtctttg gttgtttaca gttttgagat ttgtatcttg ggaaccttggt ttgtgtgaac 240
tgaagtatc tccttgtgct tgggcatcca agcggtatct gctgctctat atttgatata 300
tggtattgc 309

<210> 11187

<211> 301

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-F2

<400> 11187

ggtcgacgtt catggagtct acgaatactg ggaggagtgt cggagacagg ttcaccgatt 60
cagcggtaac agttacaaag ggtacaccac tacggccgag gccgaatcta gatacacccg 120
ctatctagcg ggagagggga gggagcgttg gaggaaccgg atgaagatga gtttcacgt 180
gatgatgtc atcgttatga ccgcagctct cttctatgtc atggtagttt agatgatcga 240
gatcgacttg taatgtgaag acaaactccc tactcgcggt cgtcagagtt gttttataat 300
g 301

<210> 11188

<211> 340

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-F4

<400> 11188

ttcacgggtc gactcccga cgacactgac gtacctcgcg aacgagcttg tggaccatt 60
ggtggaagag ctgaccgga gggtaagct cgcgccggcg aactcgctgg gagatctcct 120
gctactgtgc ttcgacgtga gcggggtaca aaacgggcaa gtggtggcga tgatccctga 180
cgtgacgtg gtgctcggcg gcggcgcgac ggtcacgcta aaggcggaga acacgttcct 240

ggatgtgcat gacgggactc tgtgcttggc ggtggcgggc gcgctctgagc acgatactcc 300
tgtgtccatc atccggaata gcgcgcagca gaacatgcac 340

<210> 11189
<211> 403
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-F8

<400> 11189

gaggtaaagg aaaggttcgc ccatggctcc gtcgcagccc aagtcggggc tcttcgtggg 60
catcaacaag ggccacgtcg tcaccaagcg cgagctgccg ccgcgcccgt ccgaccgcaa 120
ggggaaagggt accaagaggg tgcatttcgt caggaacttg atcagggagg tagctggggt 180
tgctccgtat gagaagcgta tctactgagct tctcaagggt ggcaaggaca agcgtgccct 240
gaaggtggcg aagcgaaagt tgggtaccca caagagggcg aagaagaaga gagaggagat 300
gtccagtgtc ctcaggaaga tgagatctgc cggaactgga accgagaaga agaaatagag 360
catccaagc tcatgaaatt gatggcaatc ttctgttctg gtg 403

<210> 11190
<211> 207
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-G8

<400> 11190

ttccccgggtc catcctcagg gtacgagaat atgggcgggtt atttcaccgc aaaaagggtc 60
gaagtcggaa acctcgggtg gttaaaactc ctccatagcg aagatggagc cactccagac 120
ataacccccct tagatcacct gtcaagagtt attcacacta gtatcagggg caagtaaagg 180
gtttctcggg cgccaaccaa aagggtc 207

<210> 11191
<211> 394
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-H3

<400> 11191

gtccactctc tttttgcagc cgagattggc catgttaata cataagacga atcttctaata 60
attggatcctt ttatgcgtaa tatactggac aagataaggc ttggagtcct tgctgatccg 120
ctgggaaaga ataagctgca tgaaatgctg atgaaaactc ctggatttgg agaagccgtt 180
gcaatttcta agctgatgca aatcgtcgaa ctgcaagaga gcaataaatt taggcgcata 240
gttttggata cgcgcgggaac tgggcataca ctaaaccctt tatccgctac aactttaatg 300
gagaagctcc ttggtatggc caataagggt gtgaatttaa cgtcgtcctt cgcagctcct 360
aatcaactt tcgggaaaga ccaaatagat cctg 394

<210> 11192

<211> 355

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-H4

<400> 11192

tccacggact atgctcttaa gaatgctagc ttctcggttc acccagtcctg aggtacacat 60
ccggatgacc cagtagtaac aaccgcagag gtgctccctt tatgccctag ccgaactaac 120
gggaatgtag ggcataataa caggagccag gcaacccaac ttggccaaaa cttaagtcac 180
attgatgcat ataatggcga agaaaaggta tatatgagca aaaacacata tgtgatgagc 240
ttgatcctcg gagaataagc ttctgtctgg gaagcccca agtatagtgg gcgtacatgc 300
tcaaggatgt gtacatcaca ggtgcacggt ttagccatgc gaaagagttt aagtt 355

<210> 11193

<211> 464

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-A1

<400> 11193

gggtcgacgt atcacacgag acttctgcct agtaagtgga tgacatctgt cccaacgatg 60
agccaacacg tgtttcctct agccaatgat gattttacac gtggaaaatc cccattggtc 120
ggggctgtta acgggttatc ggatccaaaa ccagaccga tagcataacg gcgttccgtt 180

acggtggatg ccacgtgtcg gtcacccttg atgaaagcac ttctgtgacg cgcgatttat 240
 cgtcatggaa gtggacactt ccgtgatgat aattttggta atgtcatgga acacttctac 300
 gacagcacag gtatgactat cttgattctg tcataaattt gtcatggatg tacatgcatg 360
 acaaaaaaac gcgacctact gtgacaaaca cgtatcatca cgggaatgta attttttgga 420
 attgaaagtc aaatcaacgg ttcgaacaac ctattttttt tttt 464

<210> 11194
 <211> 402
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-A10

<400> 11194

gaagatcctg agcaagcggc gaagggacta cttcaagaag cttctcaaag gggcagtgt 60
 gacaacatca ctgtcgtcat tgttcgcttc ttggacggaa cgacgacgtc tgctggagat 120
 ggaccgggcg aggaggttgc caaggaccaa agtgaggagg tcgccaagga ccaatcttca 180
 tagttcttgt tctccacgg cgttgatcc gctgttgtat ctgatgtca aagtagatgt 240
 catgtggcgg cgccctcccg tgctgcgaaa ccgaaactga cttggcctga gtttcgtcgt 300
 tgttccatgc tctcggtat cctagatggt aggtaatgtc ggaacacagg gggatggtgg 360
 ggcagtgttg ttaccatatg attcaacgtg taacttttct tt 402

<210> 11195
 <211> 368
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-A3

<400> 11195

cctaaattta ttcttattat ttttggagtt gaaaacgcta tactactgta ttatgttact 60
 acgaaacacc gtaaagatga taggagggca ccaaactctgt tgcgtcattc atatgtaaaa 120
 accccaaaat gaacagatgg atctcaacta aaacatcaca cgacgtcgcc tgatttaggg 180
 gcgaccctag tgtagctgca cggtagagcg cagccagat gacagaaaac ttatggttat 240
 tcatcgctgt aataactagt caacaaaaat atggcgctgc cgattttatt ccagccgagg 300

gccggtgcag ggctacggct tgaaactttg gaatgaacca cagaggtccg tccaggtgcc 360
aactgatg 368

<210> 11196
<211> 394
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-A4

<400> 11196

tcccaggtcc acacgtgcc aacgaacacca ctggcccatt tagcttaca agccggccccg 60
tttgacttgg tcaaaagtta acgggctggc ccatgaaaag cctgttaacg gtctcttcgc 120
aaatagccca tttcatggcc cgttaactca cggcccgtta ggccctaaag gaaatcggcc 180
caacaacgtc atgtggggccg tcgaatataa caccagccca tttcactttt ggcccatgta 240
tgggccacga cgtctttcgg cccatagtag gccttcgtat ctttcggccc tttacaggcc 300
cacggtgact ctagcccata atgaacagta attttcttta taccggttaa cggcctgtga 360
tttacatggg ccggtttccag cccgtgttag cttt 394

<210> 11197
<211> 382
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-B1

<400> 11197

gacagtgggc gcaacatggt tgaagggaac gatgtgtcag atggcatggg cttcgggaatg 60
ctaaccgagg gtgagagatc cttgggtcag cgcgtgaggc aagagctgaa gcatgagctt 120
aaacaggtaa aactcgtctg cttccattct gtcagctgcc actatgttgg tgtccaaact 180
gaactgtaaa caaaattatt ttcctgactt tgcaggggta tagagaaaag cttgtggaca 240
tcagggagga gatactgcgg aagcgaagag ccggaagct cccaggggac acggcgtcta 300
ccctgaaagc ttggtggcaa gcccacgcca aatggccgta cgcaactgta gtgtgacaga 360
catcccgcat ataccgtcat cg 382

<210> 11198
 <211> 440
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-B12

<400> 11198

```

gggtccacgac ctcaacggga ccaacaccac tgataactca atgatggata tacactccct   60
tatcatgtcc ctcaatttca cccaaatcga gataaaaact gccaaactttg ccaactcatg  120
gggagatggg gtgctagtga tgggtctctgg tcttgtacag accaaagagt acagcaacca  180
aaggaaattt atccagatat ttttccttgc gcctcaggag aaagggttatt ttgtgctcaa  240
tgattatttc cactttgttg accaagaaca agtgcaacct gcacagggtga gagctcacga  300
agcctttgag actaacatgg catccaacac agtccaaaca agtgcagagt acattcatga  360
agaaagtcga acaatgcaag ctgttccagt aacatctgaa gaaaatgatg ctgttgacag  420
ttacacttac tctgaaccac                                     440
  
```

<210> 11199
 <211> 389
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-B3

<400> 11199

```

gtcgacagca ccgccaagt tgcgtcggtc tagcctagag tacttggcat cccacagggtg   60
aaggcggtgc gtgagcgctt ggactcgtgg gtcggcaaag tgcataccac actgttgtcc  120
atcgaggcag agacccccga tctcgtggcg gcttagcttg ttggccaaaa atgattctga  180
ataggctttg gttgtcagca aggcggcggg gtaaaacgag agaccatctg gctgtgctgc  240
gcgtgctagc tgctcttttc ttgataacga aaacttgttg ccttggggtgt cctattggtc  300
tggacttgta acttccttct atcatcacgg atcgaaacag agaaatcata ccggcagagg  360
gtgtcactag ttttttcctg ttgaactta                                     389
  
```

<210> 11200
 <211> 392
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-B4

<400> 11200

gtcgacgagc cactatattc tgagtcttat gattacacaa actcctggcc tggaaatact 60
tttcaaccag acgttgggtct tggatctatc ggcttttagct cttcttcaca tgattaccag 120
tcttctgctg caaaacactc agtgccacta tcagtggata accatgtgcc tgccatggga 180
acaggagctt tgaacagttc ttacagtcac catatggcag gtagtgggaa ttcaacctct 240
gttgctggtg acacgcaacc gatcatgagt gatgcttttt atattgacct tgatgataag 300
tttatgggca gttcttttga tggactgcct tttgatttca tcggtattaa tagtccaagt 360
cctgaccttg atgaactcga tgaactgctg ga 392

<210> 11201

<211> 377

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-B5

<400> 11201

tcccgggtcg acaataacca ctaggttaaa actgcgaagt tgggtggcagt tttggacatc 60
ggtttttttcg gggttgtggt cgcgccacac acattcgcca ttggagggct tgacatgaaa 120
atcatgggta ttggattgat atgtgcttgc cttagcgtgt tcatgtacgg gtccccactc 180
actgccgtga gaacggtgat cgcctcaagg agcgtggagt acatgccctt cttcctctca 240
ttcttctctc tcctcaatgg aggagtctgg gccacgtatg ccatactcga caaagatgtc 300
ttccttgggg tccctaattg aataggctgc ttcttgggcg gcatccagct ggttatctat 360
gcaatataca ggaacag 377

<210> 11202

<211> 407

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-B6

<400> 11202

tcgtgggtcg tcggaactgt ctacagttag tcgtactaat gcttggttct cgccgtgaca 60

gagaagtcag agcttcatgc gttaaaggct ccggtccatg cggcgggtgca ggcatcgcc 120
 gtgatttcgt cgggcctggg agaggtgaga gacgggacta ggttggggat tgcaggggca 180
 ttttcaacat ttctctatgg gtccatcttg tcaggggcaa atcatcaaga tttcagcaaa 240
 cgtgtggcaa accattaatg acgacaaaaa tgagggaaaa tcttgaaagt gcaaagaaag 300
 atgtggcaaa tcttcaaatt ccccgagaaa aactgtccc cgatgaagaa gccaaacatt 360
 ctagagttaa ttccaattaa atgagcaagg acagaaccac caaagcc 407

<210> 11203
 <211> 359
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-B8
 <400> 11203

gccagtcccc cacccacaca ctttttgatc ctgagggcgg cgtgatggcg ctgaggggtg 60
 tttggcagct gcagaagctt gtggtgaact actgcgattg gggagggagc agcaggggaa 120
 tcagggcttt tatggagtca catcttccag ctttgaagga aaagaatccc cagttagagg 180
 tagtgacaca gcttgctcgt ggtcagcatc ctaacttgaa gggcatttac aaaaaccata 240
 acgagagagt ggtttgctgc agaaatttag cacctgagga catcatgttg caagctagta 300
 ggctaaggty ttctctgggc aggaaagtgg tgaagctgag aaccagacac gtgacgaaa 359

<210> 11204
 <211> 386
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-B9
 <400> 11204

ccacattctc cgctaaaatg agtcacatta tacacttata gacctgtgta cactcacaaa 60
 cgcacagtc ccttaatcta taagtcttca atacacacaaa atcactaagg gggcactaga 120
 tgcacttaca cagtcagacc gcccggtttt ctaagtattt ccgccggtca ttaaaataaa 180
 ttaaaaaatt ttcatgaagt ttccaaataa attttccttg caattttaaa taacaagtta 240
 taaaataatt taactttcct tgaaaacaat gttccaacat gtattcacia gataattcac 300

taagtacctt aaaaatattc cacgtgtatt aaataaatat tacacgtgta catgtaaaat 360
gtacaacgtg tataataata ctatat 386

<210> 11205
<211> 358
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-C1

<400> 11205

cgacctgggc gacgacgaca gtcagggggc aagagaagcg tggagacgta caagatctac 60
atcttcaagg tgctcaagca ggtgcacccc gacatcggca tctcctccaa ggccatgtcc 120
atcatgaact ccttcatcaa cgacatcttt gagaagctcg ccggtgagtc cgccaagctc 180
gcgcgctaca acaagaagcc caccatcacg tcccgcgaga tccagacctc cgtccgcctc 240
gtcctccctg gcgagctcgc caagcacgcc gtctccgagg gcaccaaggc cgtcaccaag 300
ttcacctcgt cctaggtccc gcgtgcatta gttcttgtgt ttctttcctg ttccctgt 358

<210> 11206
<211> 423
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-C12

<400> 11206

tgcactacgg tccattaaac aggacgacat tcaagaacaa gtatcaactt cccaacatca 60
acgagctatt cgagcaactc aaaggtgcta aagttttctt gaagcttgac cttcgtatgg 120
gttatcatca gattcgcatt cgtgaagaag atattcccaa gacaacattc agaacaagct 180
ttggttctta tgaatatact gtcgtgtctt tcggccttgt caatgtcctt ccaacattct 240
ctcgatgac gaatttcac tccaaccctt ataccaatga attcgtcctg gtgtatctcg 300
atgatatatt ggtcttctcc aagaataaga aggaccatgc caaacatttg cggttgggtgc 360
tcgacaagct tagagagtat aaattctatg cgaagttctc caaatgtgag ttttggctcg 420
atg 423

<210> 11207
 <211> 403
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-044-Q1-E1-C2

 <400> 11207

 tcgacgagga caagcatgga gatgagtcta acatcttcgg tgggcgtgtg gagatgtgtc 60
 tccggcgtat ctgccttttg tggatttgc tggatctgtt catcgttcgt ctacgtttgt 120
 gtgtcttttag gttggatcct tccaatctac actattcttc atcagcgacg tttgctgttc 180
 tggatgcgctg gttctatggg gccttagcac gaagactttc cgactgtcta ctacaacaag 240
 ctttgcccgg ctccggcgag ggggggctga tgacggcggc gcgctttcgg cccgcttcga 300
 tgcttgtaat tatcggtaga tggcttatga atctgaatgt aatttttatt atttccggtg 360
 ttcgttgtag tgccatgatt aaagatgaat acatccaatg ttt 403

<210> 11208
 <211> 404
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-044-Q1-E1-C3

 <400> 11208

 gacgtcgacc cggaagcgca ttatttttat tttttttttt tttttttttg cattttgttc 60
 atgtcaccat gtgcatctca tttgcatacg tggtcgtctc atgcatccga gcattttccc 120
 cgttgcccgt tttgcaatcc gacactccca catgcaccgg cgcaccccct cttgtctctt 180
 ttcgtgagcg ggtgtcaaac gttctccgaa tggaccgagg tttgctatgt ggccttggtg 240
 caccaccggt agaccacctg tcaagtttcg ttccttttgg aggctgcttg atgctccaac 300
 ggttaaccgg gtaaccacaa aggcctcttg tgtggtgtag cccaacaccc tccaaaacag 360
 cccaataacc catctaagcc ccctccatgc tctccgcggt tcga 404

<210> 11209
 <211> 369
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-044-Q1-E1-C4

<400> 11209

ttccgagggtc gacagagacg aaggacaccg gcaccgacat accattaaaa tcgcatacac 60

ctgttgtgca catctctgct cttcctgagg gcaccgttgc ggtttcaaca tagtaagaag 120

agcagcacgg atggatcagc gaaagagatg gcattttcct ctgaccacac atactctttg 180

acattctccc attgaaagat ctgcgggtta cttcagctct ggcaccattg aggggtgtgcg 240

ctaattttct ttggcaacta ttgtggcaaa ggctgtagct tccagagtgc taatgcgaaa 300

gcctgagact tgaagtgtta ttgcttcct tgtgataccc taataataaa tgcatttggc 360

gacttcagt 369

<210> 11210

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-C7

<400> 11210

ctcacaggac aacataaaat cctatcaaga gtctaactag tggctgtgtg ttcacctggg 60

gatgaacatg ttctgcatga tgttttagctg ttactgcaac tttaaaaaaaa aaaaaaaaaa 120

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaataaaa 180

aaaaaaaaaa aaaaaaaaaa aaaaaaccgg ccgccccaaa ggatcaaacc taacttacc 240

ttgaatgcaa cttcaaacc cttcaaaatt gtcacccaaa ttaaataaac tgcccttcgt 300

ttaaaaactt cttaacggga aaaaccctgg cttaacccaa ctaaaccccc ttgaacaaaa 360

acccctttc acaacctggc ttaataccaa aa 392

<210> 11211

<211> 369

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-D1

<400> 11211

ttgaacctga ggaatatggg tggaactatc atcagtgtga acgacactta catgggaatg 60

aaattgagat tgatattgag ccactgaca caatcgacag aatcaaggaa cgtgttgagg 120

agaaagacgg tattccacct gttcaacaga ggctcatcta tgctgggaag caactcgctg 180
 atgacaaaac tgctaaggac tacaacatcg aaggtgggtc agtgctccat cttgtgcttg 240
 ctctgacggg cggtcagtag atgcaacctc gacgtggacc gtaaaggcca tttctaccag 300
 aagttgtttg caaacctaaa tctgtgaatt tgccggctga ttttaagtgc atgtaattga 360
 cgcatttgt 369

<210> 11212
 <211> 387
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-D11
 <400> 11212

ggtcgacgag ttccaccaa tctgttccta ctaaacacag gatacttggt acagctccac 60
 attgccaaca actcattagc gtatcaggca cgcaatgggt tcgggtgggg tgcaactggc 120
 ccgcccgcga actcaagggc ggtcgaacaa agcagtgcac caatgctagc tctctacatt 180
 tcgcatccgg cgtcgtaatc ccattcagta accgccgctc gatgcattac tatactccag 240
 gggataaacg ccatacttta gcccgcacga gacgtggatc tcggccgcga tccggatgag 300
 gggacgggag atgaggtctt ggctcgtacc ttcggcgacc ttgaaccaat atgccatggc 360
 aggatcatcg caccagcaag atgatgg 387

<210> 11213
 <211> 371
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-044-Q1-E1-D3
 <400> 11213

gtttcccaaa aacttcagaa gctgttgtac aagatcatgg accctgatcc gaacaagagg 60
 atatcaatcc agaagataaa ggagtccacc tggttccgga aaggtcccgg ggagaacctt 120
 acagtgaagg agagactgcc aagtgagaat gccaacacgg atgctgttcc aacacttggg 180
 gtgaggcgca ggaagaacag tcacgaagac gcgaagcccc tggcgggtgac aaattttaat 240

gcctttgaaa tcattctctt ctccacaggg tttgacctct ctggcctatt cgtcgagaag 300
gagagcaaaa aggaagcaag gttcacttca naacagcctg cctcagccat tgtctccaaa 360
ctggaaactg t 371

<210> 11214
<211> 369
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-D6

<400> 11214

gttcacacga gttgtgaatg caaaaaggca agtggttgct gggaccttgc acgacctgat 60
gggtggaggta gtggattctg gaaagaaaag tatgtacaag gcaaaggat gggatgaagcc 120
gtggcaaaaat ttcaaggcag ttgtcgagtt ccgatcatgcc ggtgacttcc agtctgagtc 180
ttccgttgct tctgatgcta gcaactggga agctatcctc aagctgtctc ttcaaaccga 240
catggcaccg aagatgcaca gcaacgagaa tactggactt tctgttgact catcctcttc 300
tcaggcacac acggtgtgaa ggtttcttcc atggagtatg gaactggaag gcgtgaaggt 360
cggaacatg 369

<210> 11215
<211> 398
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-D7

<400> 11215

ctcgcggtgc gacactggta gtcagcctgc atgctacaaa tcagaggctg cgcgaaacaa 60
ttgttccaag tgcaaaggca tctcctctgg aagcactaat ggatgattgc aagaattatt 120
ccctcgaaac tggacgcagg gtatccttcg agtacactct gctagctggg attaacgatg 180
aaaaggcgca cgctgaagaa cttgcagcgc tgctgcatgc atgtggaggt ggttatcacg 240
tgaacttgat tccctataac ccggtagaag gatctgagta caagaggccg tacagaaaag 300
cgattcaagc gtttgttgat gcaactggaat ctcggaagat cacagtcagc gttcgacaga 360
cccgtgggct tgacgctaata gcggcttggtg ggcagctc 398

<210> 11216
 <211> 421
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-044-Q1-E1-D9

 <400> 11216

 tccacgaaga agccaatctg gtctcaatat cttggacccg aatatctggg gtccttcagt 60
 gaccagctaa aacagttggg tgagctgcac aggtcagcag agctagccgt gaaggacctg 120
 atagtctggc tatggcctgc cgagcctata cctagcagct acttcggact tgttaagcgg 180
 cttgtatgtg cctgtccgcg gctctaagcc gtgaagcggg cagtctgtat tgaacgttcg 240
 catatggcct ttgccgcggt caagacgcat taggcaaaac tggatgccaa gaatctgacc 300
 aaggggcccgc cggatggcaa tgattattat cgacgcgaac tctatatttga tggcgtcctg 360
 gaggggtccc gccttgtggc ggagcaatgt tcgaacgggt acatattccc atgagaacat 420
 g 421

<210> 11217
 <211> 280
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-044-Q1-E1-E1

 <400> 11217

 atggatcagt catagatattt ggctcacgct cagaaagggt tgatattggc acctgtcttg 60
 aagcgattga acatgtggac gaggaccact caagtttatt tggcataact gtgatgagtt 120
 cattctgtcc ggcgggtgctc attgtttcca caccagcta ctattacaac cctatcatcc 180
 agatgtcagc tttgccaatc aacgaacaga aacgtgaaca tgacgctggg tcttgcaaat 240
 tccgcatcca tgaccacaag tttgagtga cgaggtccca 280

<210> 11218
 <211> 412
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-044-Q1-E1-E10

<400> 11218

tgcacataag acgctaaagt gagtcgtaat aaacttgggg agagagtgtt tttcgtgcac 60
acaccagagt tcgaacctct caagggtttg ctagaacccg taatccgaca gaccaagtat 120
ggagccatcg tgtacattca tgaataatct tctcaggaga agaaccacat ttacgattaa 180
acaccacatc attcctggta agccacagag ccagcataag gcagccgccc caacaagaat 240
atgtgcagaa aattgttcat caatacccca caactaattg ctgaacatgt tatgcacact 300
gtgtgggggtt acagatttca agattcttga actatggccc atactgcgcg agcaaactta 360
cactcaaaaa atatgtgttt tgatagactc gtcatgttgg caaaagacac at 412

<210> 11219

<211> 363

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-E11

<400> 11219

gggtcgacac gactcgcgag atggagtcac agtaggtgta gaaattcaca agctgcatga 60
ccggaagtga acaacgcggg cacagtcggc atctcggacg actcgtcgta cggagtacgg 120
ccacggcgac catgaccac ggtatgggca tggctatgat gctcagccgg ttgggctgtc 180
attatacaca accgtcacc tggccttggc cacgtgcttg gcgcattgct tcggtgactg 240
aggactgact tccgttgaga actatactgt acctttaccg cagttggtaa tatcacattc 300
atgtgcgcag caatacatga aatttgaggt cgtgatgctg cttgcagcat acagtatctg 360
atc 363

<210> 11220

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-E12

<400> 11220

cccaggtcga cgaccggcat gacagtgcc cgggtggcgaa gctcgacgac catggccctg 60
gcagtgcctt gacaaccttt gcgacacccc tcgagcagag ctcacgccc catggccacg 120

acgacggggt gattctacta cggggcggtta ggatggcgcc acggtgagat gcagggatga 180
cacactgctt gagcgacgtg cgttggaaat ttcctttttt tctgtgaga tgtgcgagag 240
gaggaagacg aagatccagt ggctaaccaa cggtcgcgcg tgctgaatcg gatggccgcg 300
caatgaccgg tgccatagtag actccattaa aaaatgtaca cgtattttaa aagatcatga 360
atthagaaaa tttcttgaaa acataagttt tcttcattaa aagatcatga atttttaaaa 420
atattcatgg aatttacaaa atat 444

<210> 11221
<211> 339
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-E3

<400> 11221

gataaatgct ttatgatgag tgaattcaca gagctctggg acgatgacgt gccgttgccg 60
ggctatttcg aggtcctaac taagtgggtg ttgttcttgt aaattacctc tctgatttgt 120
ttgttagcct caccagatag atgatactaa ctaaattacc ttgtccatta tggcttgagt 180
ttttgttggt ctcttgggtg tctagctcta gtggctcctt ggacagtata tcgatcctgg 240
gtgaaaatgt acctgacctg tgacgtgaac attgttcact taattgcttg acatataaaa 300
gttgtaaagc tggggatgtg caaccagctt caccttcag 339

<210> 11222
<211> 236
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-F1

<400> 11222

ctccagggtc cacataaatc ggcgggatga gcacagtatt cacagcgatg agcagcgaag 60
cagatgagtg ttttatccta tctggcaagt ggtctatcat tccatttcaa cattcgctaa 120
tacgctgtaa cactcgcgt ggggcacgtg gaaatccgta tctctaacga catgacaact 180
tgtttcgggg tttttaccag ggtagacatt tggggctctag caccatcagg gaaacg 236

<210> 11223

<211> 380
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-044-Q1-E1-F3

<400> 11223

```
ctccgccang gtatctggag caaggaggta tttatagagc gaagaggcgg tgcgggaggg 60
caccaagcgg ggcacaaccc accagggcgc gcctggtcag cctgtgcatt cggttttttt 120
ggtttgattc ggtttggttc atacggtttt tggtttatac ggtttttata ctttggttta 180
tatggtttta tacgaagata tggtcgggtt tcggttgcaa ccgtttgctt tcggtttggc 240
ttccgtaata accaaattaa ccaaagttga cgcgaatatt tgaatggaca agaaacattt 300
ttggtcacat gatttggtat gtgcatgtag ccatgtacct aagatttttc ttgtaagaaa 360
tgectacgga tattagatca 380
```

<210> 11224
 <211> 382
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-F5

<400> 11224

```
cacaggacct ggactcgcgg gtcgacagaa ctcccatag tgattcgtag taaacgtgct 60
tttctcaatg gttctccaat taaaacatcg cctcaaaatg agttggtgaa ggctcttatg 120
gtgacagagg tagggaccaa aagagacaag ccacttttg atgatacaac caacagaatt 180
aataagttac tattcaagat tagatctata cgtatgtgtg gctctttggc tctaaacatg 240
tgtggagttg cttgtggtag gctagatttg tgttatgaga tcggtttttg tggccctgg 300
gatgtggctg ctggagcttt gattctaaag gaagctgggg gttttgtttt tgatccgagc 360
ggtgatgcgt ttgatctgat gg 382
```

<210> 11225
 <211> 426
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-G10

<400> 11225

cccaggtcga cagacgacac aaaggggggtg ttgatcctac tgctgctgtg aaccgacttc 60

gcagccagtc aagaggccgt aagcgtgaga ggtcactgag cagagctgat ggtgatgatg 120

ctatggaagt tgatggccag cactctgaca agaagctgcg tatgaggtcg aggtctaggt 180

ccaaatcacg accaattgaa gaggtttgtac caggtgacgg gatccgggat gttgctcaaa 240

agaagaaggc catcaagaaa tcgagggact ctgtcaagaa caggaacaag gatgctcgcc 300

gtggagaggc ggatcgcgtc atccccacct tgaaaccgaa gcatctcttc tctggaaaac 360

gaggagttag aaagacgcag aggcgataaa ccagtcaatg tggacgttgc tgcttgcaat 420

cacgcg 426

<210> 11226

<211> 357

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-G11

<400> 11226

tccacacggc tgtctaaaat gagtcatagc agtgtcgccc tagatcttgg ttctgcttat 60

tgccgcgtca aggtccactt ggcggacggt caagtccaac cgttcttcac catggacaac 120

ctcgaccaac tcagtggcat ccaactcgcg atgatgtcc catgctgcac tgccgtcaat 180

gtcaaggagg aggaggccga tcgaggagcc ctgatttctt gtaactgCGT tggattttcc 240

ccgaaaagga gaggatgaag cagcacaacg acggtaagta tttccctcag ttatgaaacc 300

acggttatca atccagtacg tgaaccaagc aacactatgc tagcggtacc ggcacac 357

<210> 11227

<211> 388

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-G4

<400> 11227

tcgacaagaa ctgcgcaaatt gatcaattcc ctgcagaatg gggggttggt tcaatatttg 60

gtgccgagtg tgagaagcgt ggtatgctta tcagggtcgc tggggataac atcatgctgt 120

cacctccact aataatgact cctgatgaag ttgaagaaat tgtgagcaaa tatggcgggg 180
 ccctaaaggc cacagaggaa agaattgagg agctcaaata agccaagaag tgagcaatgc 240
 caatttgctg aaagcctcta gtgatgatgg tgacgacaat gtacagagtg acttgaacaa 300
 ataaatacca ataataacac cgtgagcctg aaaattgatc ttgatgcaaa aaaaaaagga 360
 aagggcagaa aaagaaagcg gccgctct 388

<210> 11228
 <211> 306
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-H1
 <400> 11228

tagggccctac tcaacgtgcc cgtactgcag caatggagaa cgtagcgat gggcatggc 60
 caaagaacaa ccccggaag tagttctaca agtgcaagca tcaactggact aggaggtgta 120
 aattctgtta atgggaatcg gtgtacatca agaactgctt tgtgcaatgt ggcctaagct 180
 gttcatccat accgacaact tgcccatgag taataaggcg cctctcaatg tccccctctc 240
 atcgttggga ttctcagccc agccgttggt ctgtaccct gcatcaagct acatggaata 300
 tgctaa 360

<210> 11229
 <211> 430
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-H10
 <400> 11229

attcccaggg tcgacgatgg ctgcgtatgg tgtgcgtctc tccgacgtgc tcggcgtgct 60
 gccgaggggg ctgcagtttg aagtggctgg gtaatgaagt tcagagaatg cttttttagt 120
 acattcagag aagttgcttt cttgcttttg tgatattttg gctacacagg tacttagtgc 180
 agagagggtg tgaccttttg gtcctctcat cttgaacact tgcaccacaa cctcatctca 240
 tgggtaaaat gactattagt aaattggcac taaaaatgaa tacagaataa gtagaaagac 300
 atgatgacct catctcacgg gttccatctc aatatagctc aagcttttta gaaactacat 360

ttgacacaaa gactaaatt gatatagttg tgatagcttc cgaagtaagt gtatcacttt 420
 tgcagctttg 430

<210> 11230
 <211> 439
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-H4
 <400> 11230

cctgctgtac cgccctaaa ttctcgagtc gacctggact tcatatogat ggcatcatct 60
 agtcgtttgc caattggatc ggggagttcg gattaccata aatgtgggca tctcacacaa 120
 tgtggtgtta tgcacacgag catagctctc ggatataaat gaatgagatg ctccgtgtat 180
 cgatgagcac agatgccggg tggcgattaa caaggagcgt accgagaacg acgttgggat 240
 cttcttgatc ctcttcgca gaaacataat taacatggcc acgaacactg gtggacgggt 300
 tgggtgtagaa cactttccct gtcggatttc cgcaccaac agtttttgct gcctgggttg 360
 gggttggttg aggacactcg cgcataatgt ggactgattc cccacacttg aaacaagtca 420
 cgggtactggt accttgga 439

<210> 11231
 <211> 345
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-H6
 <400> 11231

gatggccaaa tcaactatga ggagtttgtc aaggtcatga tggccaaatg agcacccaac 60
 cgtgctccca agacaggagg agaattgtgc attgcatatt agtttaagat gcaactctta 120
 tttgatcgat ttccagttaa gcacccatc tagctgtagc tgctaaaacg gatcggacga 180
 cgcaattcct gctatgttct ccagtgtgtt tccagacctc ttgtgtttta tgtgaacttg 240
 tgtcctccct ggtgtatcct gattgctgtt gcgcccgttt gtagtatatt ttttcatcaa 300
 cttctgcttg actcttctag tatcaatgga aagctggtgt ttctgt 345

<210> 11232
 <211> 396
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-044-Q1-E1-H8

 <400> 11232

 tggcatcatc tagtcattcg actggtggta tgctaagttc atactgtatt caatgtgtgc 60
 atctgcagca atgttgtatt gacacattga tatggtggca ggaagaagat ccatgatggg 120
 actttggggg tcttgcggtc aaccctcttg tagatattga aaagcatgaa atggacatta 180
 gattacgtat tgggtacata ttcacggttt tctctaccag aatatattgc ttctctattg 240
 tttggccaag taatctagat tcaccttata ttcttgaagg tattagtcta tcagattatt 300
 aatctatatt tcattttcca agaaatcaaa ggacgagtca aacattgtac gagcttcgac 360
 tagcagaacc tgccctcgag gtggtggcca acagtg 396

<210> 11233
 <211> 350
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-045-Q1-E1-A11

 <400> 11233

 caccttcac c atggacacc agtgcattct ctacttcaac tgcaccagca ccaccatcag 60
 gtgccacctc cagccgtggt acaagaaagc aggacacaacc accattatct gccaaagagt 120
 cacctgctgg gcctgcgcaa agttcttctt ctccatggc atcaacgggg cacacaagtg 180
 atattatttg ttgtcattgt aagggaagag gtcattatgc gagagaatgc aaatcttagt 240
 gtgtgatgat tgctactaaa gatggtcggg atgagtccac tagtgactat gatgagcaga 300
 ctttggctct aactacacgt gaacaacatg gtggagatta ttctgattat 350

<210> 11234
 <211> 400
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-045-Q1-E1-A8

 <400> 11234

gtagtggtcc aacagctgtg ctctatcatg gatcagtaac agatTTTgat tctcgcttat 60
atgggTTTga tattggcacc tgtcttgagg tgattgagca tgtggaggag gaccaagcaa 120
gtttatttgg caacattgta ttgagttcat tctgtccggc ggtgctcatt gtttccacac 180
ccaactacga atacaaccct atcctccaga ggtcagcttt gccaaacaag gaagagaaac 240
gggaacaaga cgctgggtct tgcaagttcc gcaacctga ccacaagttt gaatggacga 300
ggtcccagtt ccagcactgg gctactggcc tcgctgcaag ccacaactac agtgtggagt 360
tcagtggcgt tggcggctcg agcgacgaac ctggctatgc 400

<210> 11235
<211> 419
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-B11

<400> 11235

gggcccattg ttgtttgata tcgacttgaa gatccaagcc agctaccatg gagagcatgt 60
tcctcttgtt tccttgatga gcagactgga tggcaaagca attgttggac accctatcca 120
aattgaaata cttgtagatg gttccactga ccacctggtt tctgggtggtg atattagtat 180
ggaagagagc acaggagctc caactgcttg gcgtacaggc aggaggacag ccatgcaaag 240
aattccccgt tctaattcctt taggagcatc aatggactgt ggcaatgaag gcaggcttgc 300
atatccagac tgggaaatga aaccagtctt cagtaaatac tcaacttctg caaatcacca 360
ggttaagaaa agcatgtcaa atagcaagca gaggtcatcg gcatccaaat ctcaaaaga 419

<210> 11236
<211> 401
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-045-Q1-E1-B3

<400> 11236

ggtcgacatc cgcatgaacc tcaaggcaaa aagggtcgag ctgaagacga ggcattgatac 60
accagatgtg agcaaccttc agaagtgcgc ggacttcgtg catgctttta tgcttggatt 120
tgacattgcc gatgccgttg ccttgcttcg tcttgatgac ctgtatgtgg actcctttga 180

gatcaaggat gtgaagacac tcagagggga gcatctgtca cgtgccattg ggcgcctgtc 240
 agggaaagga ggcaagacca agtatgccat cgagaactct acgaggactc gcatagttat 300
 tgctgatacg aagatccaca tactcggatc ctttggttaac atcaaagttg ccagagattc 360
 actctgtaat cgtatcttag gttccctgc cggcaaggtc t 401

<210> 11237
 <211> 459
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-045-Q1-E1-C1
 <400> 11237

ggtcgactcc cacagaaaac gattgctatc tcacgaaac atcgagacag ctttgcccct 60
 atcaagtggc atcagatttc cagggttgctc ggtgagattt tacagttttt cgtagtttag 120
 attgagtctg ttcttcatac ctatagtcca cgaaaaagcc aaaaaattaa ggttagttca 180
 tcttatccga accaatctga gcctttgcat aatctttttg gtatttgctt tgttgaattt 240
 gcggttgcat catcgtgtca agttgctggc cctagagtct agtccttttag agtttcgagt 300
 tcttctcaca agttgtcagc tcgcccgcgc accatcgtca tcaccgctgc catataccac 360
 caccatcatc accgctgccg tataccagca tcgtaatcac cgctgccata taccaccatc 420
 gtcacgcgcg ctcccatata cgacatatcc accgccatc 459

<210> 11238
 <211> 224
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-045-Q1-E1-E4
 <400> 11238

acagcacgca gccctgcagg agacatttgc ttgggtcaat actaatatgc attgttctac 60
 ttgcccggat ctctctcta ttccgcgcgc tctactttt agctttgtaa atcctcaact 120
 tttcaatcat gcatcttacc atcatgtta aagatcatgc ttgaagtgtc ccccgctcggg 180
 agaaggatcc aataactttg tggtagctgg attctaactg ccca 224

<210> 11239
 <211> 370
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-045-Q1-E1-F10

 <400> 11239

 acggtccgac atcacgggtc cacagcgacg accaaagggt gttgctacaa atcttcacca 60
 agccagtatg ggacaggccg acgttggtcc tggagatgat ccagatgac gggatgcatgg 120
 acaaggacga gagacgggaa gaggaccaga atgggtggctg ctgcgggttc ggcaaaggca 180
 acttctccga gctgttcaag tccattgaac attacgagaa gtcccttgaa gccaaagcaat 240
 ctgctgcagt tcagggatca tacgatagaa gctggagctg gatgagctga tccagtactt 300
 tgtatcaggt ctcatggagc aaaagaaaat gatgttgttt gtaagatgag gtgcgcaatt 360
 atgtccgatg 370

<210> 11240
 <211> 343
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-045-Q1-E1-H2

 <400> 11240

 gtcgacgagt tcgatgtccc agatcaaata atccgagccc caatcggcat gcaatcggag 60
 gcctacgctc agtatacaca aggtgtcggg ttctacagac aacgatcata gacctatcat 120
 tctacttcag gtcaccggtt atgcaagaag ctatatatag acaaacttat atcatatacc 180
 caacatagga agtcaaaaata agtgtatgat aagatttaga taaaacagtg tgtataataa 240
 gatgagtaat agacatcaga tgtgtagaag tgataatatt gtgaagaaat tttgtcagac 300
 tttgttttgg cagcattgct gtgaatacag ctcatacgtg gca 343

<210> 11241
 <211> 482
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-045-Q1-E1-H6

 <400> 11241

aggtccgaga ttcccgggtc cacaccgtgg gctcaaaaga aaatgctggg gcatctccag 60
 ctcaaataca agaaccctgt agtcatgatc catgagaacg gagctgctgg gaagaacacc 120
 ccggatgacg acgagttcag gtcgcagtag ctgcaggact acatcgaggc gaccctcgaa 180
 tccagcagga acgggtccaa tgtgcagggc tacttcgtgt ggtcattcct ggacatgttc 240
 gagtatatat tcggctatcg catggggtttt ggcctctatg gtgtggactt caactctgag 300
 gagaggacga ggtaccagag gcactccgcc aagtgggttca ccggcttcct ccatggcggc 360
 gagctcaggc cgggtggctct gcccggaag gtctaataccc agtgatcttg tcacacgtcg 420
 tcacgcttcc gtagcccacg aacaggaaaa tgcactaata agcctggatg gttaagtgtt 480
 gt 482

<210> 11242
 <211> 407
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-046-Q1-E1-A3
 <400> 11242

attcctaggt ccacgagact gtcatactag ggaccgtatt tctacacaat atgttcccct 60
 ttgagaggtt catgggagtc ctaaagaaat atgtccgtaa ccgcgctagg ccagaaggaa 120
 gcatctccat gggccatcaa acagaggatg ttatcgggtt ttgtgttgac ttcattcctg 180
 gccttaacaa gataggctct cctaaatcgc ggtatgatgg gatactgact ggaaaggcac 240
 tcttgaaga gactcaataa tatgcaggga cggatattct tggctctcaag cacactacac 300
 agttctacag aactctacct tggtgacccc gtatgtcgat gaacacaaga acagtctgcg 360
 ctccaaacac ccggagcagt tcgacgactg gattacatgt gaacaca 407

<210> 11243
 <211> 406
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-046-Q1-E1-A4
 <400> 11243

gtccaccaga accgggcact tgtggatgct cctgatatgg tcagggtgcca gatgaacttc 60

aagcgtcttt cgctgatcga catcaagatt gacatcaagc gtatccctaa gaaggcaact 120
 ttgatcaagg ccatggagga agcagatgtg aaaaccaa at gggagaacag ctcatgggg 180
 aagaagcttg ttgtccagaa gagaagagca tcgccgaatg actttgacag gttcaaggctc 240
 atgttggcta agattaagac ggggtggtgct atcaggcaag agcttgccaa gctcaatgag 300
 gttgctgctt agaataatcct agtggatggc atgttgagtt ttttgggtcca agttggatct 360
 gctctatgtt ccagtgttct taaagccaga attagtacaa ctgttt 406

<210> 11244
 <211> 339
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-B1

<400> 11244

ttccaggctg accgcgtcct tgtacttgct cttggcgccg tccaacggggc cgccctcact 60
 gttgtcgtaa tcgcagtact agatgagcga gatctcgct aggtactcca ccgcggattc 120
 ctcatggggc agggtcattct ctaactcgac ctcatcgaga cgcaaattgt catctccgcc 180
 ggcacgcgca tctctaagtc ccaactcggg atctcatgaa taagcagggtg ctcaagaggc 240
 aactccgcct tttctgagat ggggttgcaag ctgggtttccc acgtgagctg gaatatcatg 300
 gcgtgtgtgt cctcaatctt gggaaggatg gactccgac 339

<210> 11245
 <211> 384
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-B5

<400> 11245

ggtccatctg atcaagagaa actacatggt gtttgatgaa caaccggctc tctgatcca 60
 accgatgctt ggcatacctc cgagcttgat ctgctttcca tctctcgctt gatttctctg 120
 aggaagtgca cacgacctct tgggccta at ctatccatgc tactctagct atgatgtacc 180
 agactaccag gtcgatggat gtctcctaga tcaaccataa gcctggtagc tatgttgctg 240
 cagcgccgcc agagccgctg ctgccatcag cggagactcc cctgcatggc ggatctccta 300

tctgcaccaa ccacctctcc cgtggactcc tctcaagtct caacatggaa gtggatggtg 360
gaacgtgacg tctcctcac tggc 384

<210> 11246
<211> 395
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-C2

<400> 11246

cggcgcgcct caatggtgga gcacgttcaa tccgatgcag aaccatacac atggaggttt 60
caccgaaga cctgctcccg gggagcggat actgcagagc caccggaca atgtttacca 120
gcctgtgcct cccagagga tgccgccatt cttgtgaaga aagaccattt ctcccatcac 180
tgtgtatata gtttcgagag aggcgcgagtt tagactgttg aagggaaccc gaaacgatgc 240
cactggcgtg tgctggtgt ttttaggggt ctcttgccag cggacctgga tttcgttcaa 300
atggctgtgg tgacttatga gatcggaat gttgctgtgg tcggaactgt gtgtaaacgg 360
tttgccgaaa ctgctgccgt tggacatgat tgtga 395

<210> 11247
<211> 464
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D2

<400> 11247

acgcctgtcg gtacggctcc taaattccta ggtccacgag gcaacgataa gatcaaagct 60
aggggaactt ttgccaacat tcgcattgtg aacaagttct tgaagggaga gggtggcccc 120
aaaaccgtcc atgttccatc aggggagaag cttgctgttt ttgatgctgc tatgaaatac 180
aagaatgaag ggcatacac tatcatcctg gctggtgctg agtatggcag tggaagctca 240
agggattggg ctgcaaaggg tccaatgctt caggagtgga aggcgcgat agccaagagt 300
tttgagagga ttcaccgtag caatcttgcg ggaatgggca tcgtccctct atgcttcaag 360
gctggggagg atgccgacag tcttgctta actggccatg agcgttacac catccagctt 420
ccgactgatg tgaatgaaat caagcctggc caagatgtta cagt 464

<210> 11248
 <211> 430
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-D4

<400> 11248

attccagggg ccacgcctac gccacaactt ctaaccctgg acgtatacgg ctagctgcat 60
 cgcgcgccac gtactacgta cggcacaaca gaatgatttg gattcgcacg cagtccacgc 120
 tgccgacagt caacgccgtg ctaagggatc gcgcgcccct gatcgcccgg ttaatttgcc 180
 tctgcgaccg cgccttctgt cccctagctt acttcagggt caggccatga cagatggatc 240
 catacgtatg acgcgtgtgg gcaacgtcgc tgggtggagcg cacgaacgcc cacggcacgg 300
 atatgtcgag ataacgctat cgagatttat ttacgttcat cgtgcgctga tgggtggtggt 360
 gccatcttac acagtccagg taaacgcaga tggaatggat cgggtgtatct actacccta 420
 taaaaagaag 430

<210> 11249
 <211> 395
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-E1

<400> 11249

caacgacata ccagataaca aaaaataaga agaggagaag aagaagaaa gaggagaaga 60
 agaaaggaaa aggagaagaa aaaaaagaaa aaaaaaggag aagaagaagg aataatagag 120
 gaggagaaga agaattcttc ttcttctcct cttttttttt ttcttctttt tcatcttctt 180
 atttatttct cctgttatte ctctcctctt cttcttctta ttcttcttct tcttctcctt 240
 cttcctcttc ttatttttct tttttctttc cttctttttc ttctaaatat gaacatatat 300
 acataaatga ctttgatcat acataatttt cagatttcta cacaatatta acaaaattac 360
 agcgaaaaag tggctcggcc aaaaaaaaag gggcg 395

<210> 11250
 <211> 398

<212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-E2

<400> 11250

ctggtgccct acaggggttca agtgtggcat caactaccag ccaccttccg tcgtccccgg 60
 aggcgacctg gcaaagggtc agcgtgccgt gtgcatgate agcaacaaca ccgccgtcgc 120
 cgaagtgttc tcgcgcatcg accacaagtt cgacttgatg tacgccaagc gcgcgttcgt 180
 gcactggtac gtcggcgagg gcatggagga aggtgagttc tcagaagccc gtgaggactt 240
 ggctgctctg gagaaggact acgaggaggt tggcgccgaa ggcgagacg atgagggcga 300
 cgagggggat gactattaag tagctggta ataagtagtt ggctggttaa tgattggctt 360
 tgatctgtat actcagtaag ttgtccgttg cgttacat 398

<210> 11251
 <211> 374
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-E4

<400> 11251

ctgcaggctc gaatcgccgg tggattgggc gagcttgatg tgtcggcggg ttgggcaagc 60
 tataggccga taataccggc gcatggaccc acgatgatga agaagtcgtg tcgccatgac 120
 atgagttctc ctccgatgcg tgggtggggag atgggggtct atgctgggaa gggagattgg 180
 ggactggcgg ttagagctca ggcacgacaa tcaatggtgg cattgtcagg atgacgaatt 240
 tggggatgtg aggccagccg ggatttaccg gacatggggg ggagcgggtga cccccacttg 300
 gatctacgag acgactacga agcaactttt ttgtagtctc atacaatggt ggatgggttgc 360
 acggtacggg agtg 374

<210> 11252
 <211> 348
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-G4

<400> 11252

gttcttattt ctggacgccg cccactccaa gtgacggcct cgcccatgtc tgagtttgag 60
aaggcgagtc tgatttcacg ggcgaggcat ctgcgccatg ttggccgctt gcttgatctt 120
gtggactctg cactcctgga tgtaaacgt gaccaggcgc tgctatgcat cactgtcgca 180
ctcctgtgta tccagaggtc gccaacccgt cgcccatcaa gcgaggaggc gcttgaaatg 240
ctctctggtg aggggtgaacc accacatctc cctgtagaat tctcaccgtc gcctcctggt 300
gggttccctt tgagatcccc caggaaaggc cggtgagttt agtttggt 348

<210> 11253
<211> 382
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-046-Q1-E1-H3

<400> 11253

gagcaaaagg tagggtttcc agttgcgcgc cgccgccgcc gccgccatgg gacactcgaa 60
cgtctggaac tcgcacccca agaactacgg ccccgatcc agggtttgcc gtgtctgcgg 120
caactcgcat ggctgatcc gcaagtacgg gctgatgtgc tgcaggcagt gcttccgcag 180
caacgccaag gacattggct tcatcaagta ccgttaagaa tggaaacctc aaaggaagca 240
aggactacga aattatcaac gaactgtggt gcttcacga ggctgatctt tatectataa 300
gctatgtaat ggactactat tatgtctgaa tcctggtgac aaaaccgtga aaccatgtta 360
gccactgctg tttgagcatg tg 382

<210> 11254
<211> 424
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-A5

<400> 11254

cccgggtcga cagaagtata ttggatattc attatatgaa tgtgtacttt actagtactc 60
ctagcagcac cagggtatta gataccggtt cggttgctaa gtgttagtaa ctcgaaataa 120
aagctgcgga ataaacggag actagctaaa ggtgagatga cgatgtgtgt tggaagtgtt 180
tccaagggtg atgtgatcaa gcacgcacgt ctcctctac catcgagatt tgtgtttgcg 240

ttgagcatga ttggattatg tttatcgcaa tacgggttatt catttaagga gaataatggg 300
tactctgttt atttgaataa taccttcaat ggtcttgac ctaaaatgaa tctcgatcgc 360
agtgatacac atgttcgtac caaaaaaaaaa gggaagagag aaaaaaaaaa gcgggcgctc 420
taaa 424

<210> 11255
<211> 324
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-A9

<400> 11255

cgggtcaac tcacatggct acatctaata tggattaacg aacggaaaag gactccacaa 60
aacaagttat atgctcatct actaagagcg ataaattgcy tggaggacaa atttgcacat 120
ccatgctcag atcattcatt gacaccacaa cgcatacgac gaagcaccaa caaacatgac 180
gatttatgac tttcaccag gcacagattc tacattaata cttgcggcac ctcaataatg 240
aacatttatg atgcagtaga tgacacagtg atcaataaaa acaattagtt gaaggtaaag 300
atgaatgttc tggacttgg attc 324

<210> 11256
<211> 393
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-B1

<400> 11256

cgaccttggg acacagatag atgctcatca ggggttgacg ttctattcac aggaaagcct 60
tggcagctgg ctggagcgca thtagatcgt taaagaagtg gacgatcgaa gatcatctct 120
tttccatcta gtatgattat ggtggcaaca tttttggtat cgggttggaa ggtagaagct 180
gtgcgatcgt atctcagtga cgctttagac tattgaagag tctgcacaaa cacctgaaca 240
cctattttgt ttctgaaaa ctgaaaagac atgtaaaagc gttgttgttt tccctctttt 300
gcgaaaagtg tgggtgaaac ttggattaac ttagctcttt ccatgtgtgc agttcaggta 360
actgcaggag tgccttggtt aaacctgggt atg 393

<210> 11257
 <211> 268
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-B4

<400> 11257

gtgctgtaca aatggggaat atgacgcagg gtgcttgcta tggctgcgaa aacctctaatt 60
 ctgtttgttca cccatccatc gaatcatatt gcgtaggaaa aattagctag tattgactat 120
 catgattccg tcaactgtgat tgatatcgac tactttctga tacctgggtgg gtaatgatgg 180
 catatgtggc cagtcttcgc tcttgtatat tagcttgccc ttgctgagaa tcatcatcgt 240
 atgcatgtga tatattcggg gttttcac 268

<210> 11258
 <211> 418
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-D2

<400> 11258

acgacgacta ctacaccgga ggtatctact actacgtgca ggctgctgac gacgaccagg 60
 agtagttagg aggatcccag gcaggaggcc tgcgcctctt tcaatctata tcccagtttg 120
 tgctaacctt cttaatgcaa acttggtttac ttatgtctat actcagatat tgttgcttcc 180
 gctgactcgt ttatgatcga gcacttgat tctagccctc gaagcccctg gcttggtatta 240
 tgatgcttgt atgacttatt tatgttttta gagttgtgtt gtgatattct cccatgagtc 300
 cctgatcttg atcgtagacg ttgctgtgca tgattagtgt acgattgaat cgggggctgc 360
 acaccctagg agcatgcgta gtagtacttt tcttcgaggg caagtagact tttgcaat 418

<210> 11259
 <211> 389
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-E2

<400> 11259

caggggtccag actccctctg aagtaacaga tgcagtgagc agaataaacg ggcagtagaa 60
 gatccccag cccaacacat atgcagagac cgaatccata accaaagacc accgcgctcg 120
 ccgctcatgc gaggagcccg acgccgccag gccgtctcaa aaagaaacag gtgccgccac 180
 ccgcctcacc caaatcggtg cggaacaaaa tgatcgcaac cccagctagt aaagcatact 240
 atcgatcgac acgtgcggtg ggaagtattg caatgggcca catgtacatt cgagtagatc 300
 gacacgcccga gacatgacga gcaacacgtt tgcagggaag atttagcctg caggtcacaa 360
 cccactatc aatctaggag cccccctct 389

<210> 11260
 <211> 349
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-047-Q1-E1-E6
 <400> 11260

cccgggtcga caccgaacac aacgtgctgt cattcgcggc catgatgagg acgaacgtca 60
 cgatgcccgc ccacttgatg tacgacgggc aggacgacaa cctgtttgag cacttcaccg 120
 cgggtggctca acggctgggc gtctacagcg ccatatacta cgcggaacatc ctcgactttc 180
 tgggtgcagac gtggaacgtc gccaacctca ctgggctgtc tggggaatgg aggcggaactc 240
 aggatttcct ctggccactg ggaacaaggt tcagggccct ggtggagcca actcagggtg 300
 gggcgacaca gttaccggtt gttcctttca actggattca tggtcggca 349

<210> 11261
 <211> 414
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-047-Q1-E1-F2
 <400> 11261

ttcccgggac gacctcgcgg tccgctctgc cgccgggctg gatccaaggg gattggatca 60
 cctctcagt ctcggtggag gatctggaga ggctcgctgt tgacgggctg atagcgggatg 120
 gatcttggag gctgccggaa ggggagtcgg agcccgcgcc gcgcgacggc gagccggttc 180
 tctcagcagac tcatgaagaa agacgtttct cgcttcccc acatccattc ttccacgggtt 240

tcgtgaattt cttcgggtgcg cagatccatc acttttcccc aacaccactt tgtaccttgc 300
cacatttggt togatgtgtg agaagttcct gggatgccac ccacattggg gggtattcaa 360
acataatttt acctgttgat ctgagtcggt gaacagagcc aatctgacta atga 414

<210> 11262
<211> 113
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-047-Q1-E1-F4
<400> 11262

gactcagcgg ttccctatcc tcctgtccac gctaagccg ctgattggt gttacagttg 60
ttaacttcat caatgccct tgattgcgt atatagtntt gttcagtcgc gca 113

<210> 11263
<211> 436
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-047-Q1-E1-G12
<400> 11263

cggggtcgac aaactcaccg ccgacaaccg ggtctaccac aaggcctgct tcaggtgcca 60
ccactgcaag ggcaccctca agctcgcgaa ttacaactcc ttcgaaggag tgctctactg 120
caagcctcac tttgaccagc tcttcaagag gaccggcagc ctggacaaga gcttcgaagg 180
cactccaaag gttgtcaagc cagaaaggaa tgttgggaat gagaatgcta ctaaagtctc 240
gagcgcattt gctggcacca gagagaaatg ttttggacgc accaagacgg tctatccaat 300
tgagacgggt actgtgaata acaccatgta ccacaagagc tgcttcaaata gctgccatgg 360
agggcgcacc atcagccctt cgaattacat cgggcacgat ggaaagctct totgcaagca 420
tcaccaaacc cagctg 436

<210> 11264
<211> 361
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-G2

<400> 11264

cgtgcgagat tcgcgggacg actcgagtc tcatattaag tgaaccagaa gcggtacatg 60
cgatagaaaa gaaaaacaaa cccaagcacc agcacgaccc ttcctctcga tcccatctgg 120
acctttagta ttctcgggaa tatactctgat tatgaagatg ttccgtaatg ctctggagcc 180
gacaactttt tggactgctc gatgtctaata accaatgata ctacgttttt ggggtgttggc 240
tgtaggctgg agctatcagt atgactgaaa ttttcatttc accagtgtaa atttatacgg 300
acatcaatag acagcgacac gtcaatactt gtcaccagtt tgcaatttgt agtacagtat 360
g 361

<210> 11265

<211> 340

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-H11

<400> 11265

tggataggta tgtatggtgg ctgttttttag aaggatatgt ggcgggttta tgggtaccggc 60
ggaagttgcc taggactaca gaggctaaca atggcgaaaa ggtgagagtg cgtgtaatcc 120
atggactcaa cattagtcat aaagcactca tatacttatt gcaccaatct attaatactc 180
aagacatagt actacacgca tgctcctatg gggatacttt gctacgacaa tatcatcgct 240
cgtccccgac cgccactcat aatgaatata agcaccatac atctcatgct ccaacatcgt 300
tacataaggc ttcaccatac gtgcatgcta cggcactcac 340

<210> 11266

<211> 408

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-H2

<400> 11266

ggacgactct cgcgcgtcac ctgcacacat gatccgatcg agccagccta gatcaagact 60
tgaaccacaa agcaacctag acgataccag agagagagag agagagagag atggtaagtg 120

tagtgcagtg cacagaccgt tatcgtcagc gtcctggatc atcaacctga cctcgtcgag 180
cgtaaagtgc tcgccggcct cgatggccag ccgctggatg tccatgtccg gcctcgatgg 240
cctcatctgc ccgaaagatg acatggtgag taacccccaa tctgggacac ctcagacgat 300
gacagaagag agaggaggag tcatgagact gtgatagcct ggttttttgc cttctctctt 360
tttttcggac tttcttttgc atctactttg gattttgagt tttgagtc 408

<210> 11267
<211> 387
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-H4

<400> 11267

cgacgcaata ttccggcgact cttacgcaat agcattgtat ttggaggaca agtaccacca 60
acgtcctctt ttgcctcaag accttaaaaa gaaggccctg aatatccaga tagcaagcat 120
tgtgtgttct ggtattcaac ctcttcacaa tctcaccttg gtgagattta tcgaacagaa 180
ggttggaaca ggggagagca tcccgtgggt ccagcaacag attgatatag gtttcacagc 240
tggtgagaac atgatcaaag gctgtgctgg gaagtttgct atgggatatg agatccaact 300
ggcatatgta atccttgcac cccagatttt tgctgcggtg actcggttaac aaacggacat 360
gtcgaactat cccacccctcg cgaggct 387

<210> 11268
<211> 262
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-H6

<400> 11268

tcgcgggacg atttcgcggt cgacagcaga cgtgatcgcg gtcgagttgt cataagtcta 60
tcatagatct taggctcgaa acatagtatc tcaatggata tcgctcgctc gatgattctc 120
aattcagatg ttcgcgctcc tcttcgtggt gatattctcg aggttactct ttttgtggcg 180
tgtatgatca tctgcactgc agtattgttt aagatcagat tgggtgatgg gtactatttg 240
tatcgcatca gtcggccttt aa 262

<210> 11269
 <211> 440
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-003-Q1-E1-A6

 <400> 11269

 ctgccgttac cggaccgaaa ttcccgggtc gaccccttct acatgcgtgc caagatcttg 60
 ggcagcgtg gggaccggca agtcgcgagt tcttacctcg aaggcgcat tctggcaaac 120
 caagataagg ataacttctt cgtgccttac tttcccgagt atgtcctccc ctcaaccggc 180
 ccgtaacata tgaattctta catttcgacg gtttttcttt taacattccg tgttttctgc 240
 agtgacacac gttgcacgct catcctecta agccccaat attctatggc cacgtatttc 300
 gacccgaacc gtcagtcaaa cgtagactac acaaagtca agaaggttct tgatgatgtt 360
 ctccccggct acgccaatc tggaggcacc ttcaccaggc ctattcgtaa gtacggcaag 420
 cacgtgttct cccacaatac 440

<210> 11270
 <211> 359
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-003-Q1-E1-A7

 <400> 11270

 atctgccagt acttctactg gtctctccac tacgccagt ggaaggagac ggcggagtgc 60
 ccgatcgagc cagaaataac gctggagctg atgatggctg caaactacct cgacacttag 120
 cctggaaaac tgcattggtg ttgacaagat gaatccatcg tccatttggg ttcattcagt 180
 agaagatgcg atgttccacc attgtgcttg ccatgtctca gtatatgggt ttagtaaaact 240
 ataaactact aaggttgcca tggatgtatt gcgcggtag tagcatgaat ctgtcgtttc 300
 tggacttaac agcttggccg ggatcagatc ntgttggtgt gtcatatcaa tcaaaactg 359

<210> 11271
 <211> 457
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-A8

<400> 11271

cctgccggta ccggaccgag attccccgggt ccactacatg acacttaacc attatttggg 60
cctagaggaa ggcatagggg agtaataagt acatgatggg ttgctagagt gacagaagct 120
taaaccctag tttatgtgtt gcttcggttag gggttgatat ggacccatat gtttaatgct 180
gtggtttagt ttaccttaat actccttttg gtagttgcgg atgcttgcaa tatgggttaa 240
tcataagtgg gatgcttgct caagttaggg cagtacccaa gtgtcgggtcc acccacatat 300
caaattatca aagtaccgaa cagaaatctt atgaacgtga tgaaaactag cttgacgata 360
attcccaatg tgtcctcggg agctcctttc tcattattag atttgtccag acttatcctt 420
tgctacataa aggattgggc caccttgctg cacttta 457

<210> 11272

<211> 140

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B11

<400> 11272

ggtccgaaat taccgggtcc acgaccactg gccacctgat ctataagctt ggaggcggtg 60
acaagcgtgt gatcgatagg ttcgagaacg aagccgctga aatgaacaag atgtctttca 120
ggtacgcctg ggtgcttgac 140

<210> 11273

<211> 461

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-B8

<400> 11273

cgctgccgg taccggaccg aaattccccg gtcgaccttg cctgccttct catctaccaa 60
gtatctaggg tagtactgct tcagtgacca ttcccgcat tacagaagca cttagtctcg 120
ggtttgggtt caaccttggg tttcttcaact agagcagcaa ctgatttgcc gtttcatgaa 180
gtatcccttc ttgcccttta ccttcttgaa actagtgggt tcactaacca tcaacaattg 240

atgctccttc ttgatttcta ctttcgcggt ctcaaacatc atgaatagct aaaggatcat 300
catatatatc cctaatatgt cattgttcat ctogaagctc tagtagcttg gtgggtggtga 360
ctttggagaa acattactat cccatctgga agattaactc ccacttgatt caagtgattg 420
tagtactcag acaatctgag cacatgctca atgattgagc t 461

<210> 11274
<211> 316
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C1

<400> 11274

ggtccgagat taccgggtcg acgacctcat tgtggaggac tcgtggaagc gtcaggttgg 60
cggggactaa agctggtaga ctgtttgaat ggaaggctct gtgctgcaac aaaaccttgc 120
cctagtagct atatgcaatg cttagcactg aactgctgtg acaatgttat gttaccgtaa 180
catgtgtggg ctatgtctgc ccattgtgtt gtgctactac tgtaaaccaa ttgcgtgggt 240
gcgtagttt gcttggacca ttgcttgtat gcagctacaa gttgctaata aagtacctac 300
tctaacctcc ttttgt 316

<210> 11275
<211> 428
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C2

<400> 11275

ggtccgaaat taccgggtcc acggcggcgt ctggatccag gactccaaca tctggttgcg 60
acaaccagat agaaaggaaa gggggaaaaa gagggagaga agcaaccgtg agtactcatc 120
caaagtactc gcaagcaagg agctgcacta catatgcatg ggtatatgtg taaagggcca 180
tatcggtgga ctgaactgca taatgccaga ataagagggg gatagctaata cttgtcgaag 240
actacgcttc tggctacctc catcatgcag catgtagaag agagtagatt gaagtcctcc 300
aagtagcatc gcatagcata atcctaccgg gcgatcctcc cctcgtcgcc ctgtggaaaa 360
gcgatcaccg agttgtctgt ggaacttgct tgggtgtgtc ttattaagta tccggttcca 420

gttgatcat

428

<210> 11276
<211> 400
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C3

<400> 11276

gggccgaatt aacgggtcga cgccttctac atgcgtgcaa agatcttggg cagcgtctggg 60
gaccggcaag tcgcgagttc ttacctcgaa ggcgtcatte tggcaaacca agataaggat 120
aacttcctcg tgccttactt tcccagataa gtcctccctt caaccgcccc gtaacatatg 180
aattcttaga tttcgatcgt ttttctttta acattccgtg ttttctgcag tgacacacat 240
tgcacgtcga tctctctaag ccccaaatac tccatggcca cgtatttcga cccggaccgt 300
cagtcaaacy tagactacac aaatgtcaag aaagtctctg atgatgttct ccccggtctac 360
gtcaaactctg gaggcacctt caacaaggcc tattcgtaag 400

<210> 11277
<211> 436
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C4

<400> 11277

gggtccacaa tgtaccgatt actcatcttt ttatgagaac agttattcaa gcaactcgatg 60
ctttcccagc tttggttgat tttgtcatgg ggatactttc caggcttgtc aataagcaga 120
tctggaaaat gccaaagctg tgggttggct tcttaaaatt ggcataccag acccaaccac 180
gctcttttga tgttttacta cagttacctc caccacagct tgaagttgca ttgaataagt 240
accgaatct tccatcacat ctttcttctt ttgttaatcg gcagaacttg cacaacaagt 300
tgcccagaca tactttgaat attttgggct tctttaacga accacagcag gcaccaatgc 360
catttgcgcc cgctgcatta caaacagcag acacgacttc ctctcttctt ggtgcaaaca 420
taatgtgaaa tctgat 436

<210> 11278
 <211> 348
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-003-Q1-E1-C5

<400> 11278

```
atctgccagt acttctactg gtctctccac tacgccagtg ggaaggagac ggcggagttc 60
ccgatcgagc cagaaataac gctggagctg atgatggctg caaactacct cgacacttag 120
cctggaaaac tgcattggtt ttgacaagat gaatccatcg tccatttggg ttcattcagt 180
agaagatgcy atgttccacc attgtgcttg ccatgtctca gtatatgggt ttagtaaact 240
ataaactact aaggttgcga tggatgtatt gcgcggttag tagcatgaat ctgtcgtttc 300
tggacttaac agcttgggcy ggattagatc ntgttgttgt gtcatatc 348
```

<210> 11279
 <211> 447
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C6

<400> 11279

```
taccggaccg aaattcccgg gtgcacttcc accaaagcga tatccatcat ctcatcgaaa 60
gacgggacac ctttgcctct atcaagtggg atcagatttc cagggtgctc ggtgagattt 120
tacagttttt cgtagtttag atcgagtctg ttcttcatac ctatagtcca cgaaaaagcc 180
aaaaaaaaatt agggtttagt catcccatcc gaaccaatct gagccttgca taatcttttc 240
tgtatttgct ttgttgaatt tgcggttgca tcgtcgtgct cagttactgg tcttagcgct 300
tagtctttta gagtttcgag ttctgttcac aggttggtcac gtgcgcgctg ccatatatca 360
ccatcgcatc atcatcgctg ctgttgccat ataccaccac cacatattca ccgccaatcc 420
gaatccatat acgccaccac atatccg 447
```

<210> 11280
 <211> 230
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-C7

<400> 11280

ttccccgggtc cactaatcgc cgagcacaca tggctcgcgg cgacttgact attcacgact 60
cagaatgcat ggtattcgga agcttatcct ttaagccaag acattctttc cttgatgcag 120
gtaaaacgat gtcacatgct tggctagatc aatggccatc catcatctat cataaatcaa 180
ggtatgttaa gccagacttg cacattcttg ggacagatgt atcttttcat 230

<210> 11281

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-D1

<400> 11281

ggtccgagat taccgggtcc acaacaagtc gccaaatgat ccattccctg cagaatgggg 60
ggttggttca atatttggtg ccgagtgtga gaagcgtggt atgcttatca gggtcgctgg 120
ggataacatc atgctgtcac ctccactaat aatgactcct gatgaagttg aagaaattgt 180
gagcaaatat ggcggggccc taaaggccac agaggaaaga attgaggagc tcaaatcagc 240
caagaagtga gcaatgccaa tttgctgaaa gcctctagt atgatgggtga cgacaatgta 300
cagagtgact tgaacaaata aataccaata ataacaccgt gagcctgaaa attgatcctg 360
atgtggaaat ttcagttctt atttaccatc tccagtcac 399

<210> 11282

<211> 435

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-D11

<400> 11282

ggtccgaaat taccgggtcc acaactggct taacaaaaata cacagggtgt gcccgttgtg 60
tcgtggggac gtctgcgaag gtgttgccctc ttgaagacct tgggcaccgg ctcacgcct 120
caatgcgcct cttgaagatg gtatggccgg cacatctctt gcagccatgg acgaagctgt 180
ttggttggtc tggagagggc tggttaccca ttgctgaagc atgcgatttc atgcattgat 240

tcgacatgtc aagttccac aatataacaa tgacctgtac atatcttttg tagccttatc 300
ccatgtatga catcatgtac atatgtgcga aaatttgatc cgattccacc atattcgaga 360
tcaatatgta tccgccatgt tacaatgatg aatccaagtc aatctctcca tcaggaagat 420
acatatTTTT aatgc 435

<210> 11283
<211> 432
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-003-Q1-E1-D2
<400> 11283

gggccgaaat taacgggtcg acacggagaa tgatatgcat ctccctggag acgacccttg 60
ggagtcattt gtcaatagtg tatggtacat caagatactt tcaccagagg atgtgcacaa 120
gttgggcaag caaggaaatg atccacgtta cctttcctaa gtgcaagatc attgtgctgt 180
ttctgggtcc agcgaggatt cgacagcaca tggtagcacc cttgtctacg gcggtacaac 240
atccccggaa cctccgatcg tctcatcttc gtacctgtct catgcgtgtg ccccgtagc 300
gtctcgagag ctccccgtcc gttacctatc tccgtccggt gcaagccacc gacgccatga 360
actgagattt ctgtagggtc ctctgggaa tctgtatcgg ttttaactttt atcctagatg 420
gtttgtacct cg 432

<210> 11284
<211> 391
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-003-Q1-E1-D5
<400> 11284

cgctgcccgg taccggaccg aaattcccgg gtccacactg aaagccgcat catcccaggt 60
tcaagccgca attcgaggca gtgggttctgg caaaaatgct gttacagagg gtgtggaagc 120
atctcttata tatgttcgtt tcaaggcagc agctggggag ctaaaaccgg ttttcaatga 180
gattgaaagt agatcctcta agaaagagta tgcgcagact ctttcagaat gtcacagttt 240
gttttgtgag cagaggctgt acttgatacg aggtacggtg cagcaacgca tttctgagtt 300

tgctaaaaaa gagaccttac cttctttttac aaggtctggg tgtgcctatt tgatggaagc 360
atgccagttt gagcacaagc tttttgctca c 391

<210> 11285
<211> 453
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-D8

<400> 11285

cgctgccgg taccggtccg aaattcccgg gtcgacatgg tcctgcacgc gatactggag 60
gaggacgata cggaagaagg tgcgccactt ggagaaatta ttctcagcag gatccagttt 120
gaacttgaca tagttggaga tgtgatcgtt gtggatgttg agaggggagt ggctggagga 180
gggagcagcg gaggaggaga gggcagcggg ggtgatggag gatgtagccg gagcagaggg 240
agaggtccca gaggagaggg cggcgaagga aggggagtgc gccgccgggtg agggaggtgg 300
gttgaagaga tcctcgaaag ccatagcagc tgataccaag ttatgggatg aattatgtgt 360
aactcgcag tagctcacag agagattaca tataggaggg agacctcaac ggctccagga 420
agttaggcac gtcctaagcg tgcattggctc tat 453

<210> 11286
<211> 346
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-E1

<400> 11286

gggtcgagct cggccggccc atgtacggat gaaatggttg agaacaggaa gcagatattg 60
agcaggggtct tcctcaaaaa cctccagact gatgacactg tcttcaggaa ggtgtctcga 120
tctgttcact gcgcgttccg tgcagtcacc ctaagtggca acgggaccaa gggcatgaaa 180
ctcgccgacg cggctcctggg gcgcacatggg gctaccaagc tcaccgaccg cgtaatgaaa 240
gcacctgacg tgctgatcac agtagcaacg atatcagaac acgttctactg gcccggtgga 300
caatcatctc ctctaataga cgtgctttgt ttatgctgcc ttcggg 346

<210> 11287

<211> 463
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-003-Q1-E1-E5
 <400> 11287

```
gcctgccggt accggaccga aattcccggg tgcaccaggc tgagaaaatg ggacttgact 60
acatggatgt tgaaagtctc aagaagatga acaagaacaa gaagcttggt aagaagctag 120
ccaagaagta ccatgctttc ttggcatcag aggccataat caagcagatc cctcgtctcc 180
ttggccctgg tottaacaag gcaggcaagt ttcccactct ggtagtcac caggaatctc 240
ttgaagccaa ggtcaacgag acaaaagcta ctgtcaagtt ccagctaaag aaggttcttt 300
gcatgggtgt tgctgtaggc aacttgctga tggacgagaa gcagatccaa caaacatcc 360
aatgagcgt caacttcctt gtgtccctcc tgaagaagaa ttggcagaat gtgaggtgcc 420
tgtacgtgaa gagcaccatg gggaagcgtg tacgtgtgtt caa 463
```

<210> 11288
 <211> 457
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-003-Q1-E1-E7
 <400> 11288

```
agcctgceng taccgatccg aaattcccgg gtcgacgctc catttggtcc tgaggcttag 60
gggtggaact atgatcaagg tgaagacact tactgggaag gaaattgaga ttgatattga 120
gccactgac acaatcgaca gaatcaagga acgtgttgag gagaaagagg gtattccacc 180
tggtcaacag aggtcatct atgctgggaa gcaactcgct gatgacaaaa ctgctaagga 240
ctacaacatc gaaggtggtt cagtgtcca tcttggtctt gctctgaggg gcggtcagta 300
gatgcaacct cgacgtggac cgtaaaggcc atttctacca gaacttggtt gcagacctag 360
atctgtgaat ttgccggttg attgaagtgc catgtaattg acgcatttgt gaagtcagct 420
gtcacctgta cttggatgga attgtttgaa ctatatg 457
```

<210> 11289
 <211> 453

<212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-003-Q1-E1-E8
 <400> 11289

taccggtccg agattcccgg gtccaccgac agaaggggag gtttgtcagc tggtttacta 60
 aggcaagcga cctatacgac agctcgtctt ggatccttca gggttttgac aaacaaagca 120
 attgaggcaa atgatgggaa gccattgccca cttgttcaga aagcttttat tggcttgact 180
 gctggagcga ttggcgcatg tgtgggcagt cctgctgatt tggcactcat taggatgcaa 240
 gctgactcga ccctaccagc agcacagcgg cgtcactaca agaatgcatt ccatgcactc 300
 taccgtatca ccgctgatga aggcgtcctt gcgctttgga aggggtgcagg cccaactgtg 360
 gtgagagcca tgtcactgaa tatgggtatg cttgcgtcct atgatcaaag tgttgagctg 420
 ttcagagaca nattgggtgc cggagaatat cag 453

<210> 11290
 <211> 397
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-003-Q1-E1-F11
 <400> 11290

ggtccgaaat taccgggtcg acgaattttt ttataaaaaa gaaaaaaatg gaagaaaaaa 60
 aaaaccgaac tagaaacatg tttttttctt acttctttac ctatttttct ctttacgaga 120
 ggcacctccc gcggaagcaa atctttgcct ccacgagaag caaatatgtg tctcttgcag 180
 aaggaaaaaa aactctgaag cacaactgtg cctcttgcgg aagcaaactc gtgcctctta 240
 cagaagctac aaacatatgc ttccatgaaa agtaaatttg tgccttttagc gaaataaaaa 300
 agatgtgttt gtgcctcaag cgaaaggaaa tcggcgccta tcgcggagta aaaaaaagtg 360
 tttttccatg caaaagaatc atttttcgtc caaatg 397

<210> 11291
 <211> 452
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-F4

<400> 11291

gggccgaaat taccgggtcg aggaccacga ggaggaggag gagcagcctg gccatgtgga 60
ctagcttgcc ccgctggagc gcttgcagga gtagaatgcc aatatgaaga cgacttggcg 120
agccggggagc cactccgtgg tggttatcct ccagccaaat cgacccaggg cgcgctcccg 180
cggcgaagcg tgtggcacga ggagcacaat aaaatgggat cggctaggtg tagtcaactg 240
aaaattatat ttccgtgtca cttgtttata tgtgtgaatg atgcgagcc acgaaagaac 300
aaagcctgcc ggacacagct atgctatgcc atgctactct cttgcgattt gctgtaattt 360
tggagggaga aagcgcgagg agagagagct tgtgagagag accgtgttgt gtacgtacat 420
gtcagagaga tttaatgaga gagagggaga ga 452

<210> 11292

<211> 462

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-F5

<400> 11292

cgcctgccgg taccggaccg aaattcccgg gtccacatcg agccagatac gcatgtcaag 60
caggcgatga atgagatcaa tgcagctgca aggatgaggg tggctgcaaa cgagaaggcg 120
gaggctgaga agattgtcca gatcaagcgt gccgagggtg aagcagaggc caagtacctg 180
tctggcctcg gtatcgcccc ccagcgccag gccattgtgg atggcctgag ggacagcgtc 240
ctgggcttct cagtcaatgt gcctggcacc actgcaaagg atgcgatgga catggtgctg 300
atcaccagc acttcgatac tatgaaagag attggcgcgt cctccaagtc ctggcggtg 360
ttcatcccc atggccctgg tgcggtgcgc gacatcgcca cgcagatccg tgacggtctt 420
cttcaaagcc agtctgcctc tgacaactag cagtttgctt cg 462

<210> 11293

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G1

<400> 11293

ggtccgaaat accgggtcga cgccttcctc ttcgattacg atgggggtgat ttggaaaggg 60
gacgagctca tccaaggggt ccccgagaca ctggagttgc tgcgaaaatt gggcaagaaa 120
ttagtTTTTg taacaaacaa ctctaggaag tcgagaagggc agtattcaaa gaaattcaaa 180
acacttggcc ttgaagttac tgaagaagag atcttcacgt catcatttgc agcagccatg 240
ttcttgaagt taaataatTT ttctccagac aagaaagttt atgttggttg tgaggatggc 300
atcttggacg agctcaagtt agctggcttt gaaatgtttt ggtgggtccg atgatggcac 360
aaaaaacata atgttggagg cgaactttca ctttgaccac gacaaaaatg ttggacctgt 420
cgttgttggg 430

<210> 11294

<211> 378

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G10

<400> 11294

gggtccagac cgagccagat acgcatgtca agcaggcgat gaatgagatc aatgcagctg 60
caaggatgag ggtggctgca aacgagaacg tggaggctga gaagattgtc cagatcaagc 120
gtgccgaggg tgaagcagag gccaaagtacc tgtctggcct cggtatcgcc cgccagcgcc 180
aggccattgt ggatggcctg agggacagcg tcctgggctt ctcaagtcaat gtgcctggca 240
ccactgcaaa ggatgtgatg gacatggtgc tgatcaccca gtacttcgat actatgaaag 300
agattggcgc gtctccaag tcctcggcgg tgttcatccc ccatggccct ggtgcggtgc 360
gcgacatcgc cacgcaga 378

<210> 11295

<211> 439

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G2

<400> 11295

gggtcgacgg cggagaagaa gaagaagcaa tggcgtccgg gtggggcatc aacgggaaca 60

agggccggtg ctacgacttc tggctggact tcagctcgtg catgagccgc tgccgccagc 120
 cctccgactg cggcctcctc cgcgaggact acctcgagtg cctccaccac tccaaggagt 180
 tccaacgcag gaacaggatc tacaaggagg agcaacgtca gataagagct gctgctcgca 240
 aggccaatga agaagccgaa ggagctcctg ctgttgcagc tcaccactag catcgctttt 300
 caattttttc ttatgctttt gtttgcgtca agtgcttcca tggtcggcta tgagcaatgc 360
 aataattacc taaacattct accctcccaa ctccatgact tggtctgaga gcatgagttc 420
 gataaactac cttgggcat 439

<210> 11296
 <211> 394
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G4

<400> 11296

cgggtccgaaa ttaccgggtc gacaactaat ttaactgcat tgacaactaa tcatatttgc 60
 gcacacgtta catttaattc tatcttgggtg gttgtttgga taactagcat ttggaacaag 120
 ttttagcaaa atcagtttta agaggatttt tagggaaaaa acagtttaag ttgttggttt 180
 gtagagtgct ttgtttgggc ttaaaaactt caaatatggt actagtttgg gtgagactag 240
 tattgaatgg attttcatct cacaaccgaa tgtccacgag ctctactcg gcctcctggt 300
 tcccgaggtc gtgctcggcc tctgttccc gagctcgtag tttggcctcc tgtcctggag 360
 ctcatactcg gcctcctggt ccacgagctc gtac 394

<210> 11297
 <211> 370
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-003-Q1-E1-G7

<400> 11297

agcctgccng taccgatccg aaattcgcgc ggtcgacact gaggaatgaa ggctggctgt 60
 cacccecaac ttctctgttg atttcgggac ctagcctgat ggtcgctccg tgggccatga 120
 tatgagacat cctgctggag actgcacctc tgacagatgg atctaagacg aagggtctcc 180

gacacaggca gctgcagatc catggtgttg agctcactgt gactaaaatg attgctacac 240
 tgcctgcggg gttgtaagtg atgtggcatc acatggaatc agttcctgat aggtcctctg 300
 acattggcat catgggagct tgtaccgtaa tgacatttgc cgctgagtca gactctgtct 360
 atagcatgca 370

<210> 11298
 <211> 352
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G8

<400> 11298

gtccacgaca gctagaccgg gcaagggttg tgcgccagta tagctctgaa gatggactgg 60
 tggcagttgg cggcggcagc ctctaagagt gcgccggatc ggtggatgtc ctattcccgg 120
 catgtggctt ggttgatgcc tcaggtctta atgttaggtt tgactgccag gtctgtttgg 180
 tattaggcca ggactatcaa catcccttca tcaactggat aggagtatcg acagatactg 240
 cgtagacggg gacttcacac ttaccgccgt attttttttt agaagttttt ttagataatt 300
 aatacagtgg ttgtatgcat cgcccatatg caaaagccgg ggtcttcttc tt 352

<210> 11299
 <211> 377
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-G9

<400> 11299

gggtcgacac attggtcggg aaaaagggg atgatggtgt tactgtacta agtattcttt 60
 tcatgtgtct agtgtcttta tccaacatg ttgcaaagta atggagtggg catacgagga 120
 gtagacttca tttgatgggg gcctgtctgt cagcccttgt taaatagtgg tattcacctg 180
 tgtgtgttac cacagtgcgc cctctcactg taatttctcg ctgggtgcttg tgtataaaac 240
 cagtcattat cagtttagat gattgtggcg atggtgaaca caattgctga attaattcaa 300
 gttattgtag gagctgcca gttttgatca tgagctttaa aagacacaga gataaaaaag 360
 cggccgctct agacgat 377

<210> 11300
 <211> 448
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-003-Q1-E1-H1

 <400> 11300

 taccggtccg agattcccgg gtccacacgc tcgtagtaca tctgaagcgc gatctcgagc 60
 tccaagttgg ctacttcata agagatcacc agctcgagga tgcgacggcc atgttcctct 120
 acttcgccc ggtggatacc tgggccaagg aggcggtcga gcctacggac cagcgcgttg 180
 gcatccagcg ggccgtggac aaggcgaacg gcggcaccca tgcgaacggc aggcgtccgg 240
 tgcaagtacg acacagccga cgtctggtgc aagtacaaca ctgagggcct ctgcccactc 300
 ctggcgagga atgggggtac tgacgggacg tgtaccacgc cgcgacggcg tgtcgatagc 360
 aggcaagcgc cgatggatcc gctcttgctg ttccggcgtgc tgtacctctc gctctgcggc 420
 gctccaacgg tctcgccggg cggcgagc 448

<210> 11301
 <211> 230
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-003-Q1-E1-H12

 <400> 11301

 aattcccggg tcgacgcata tgtggcagat aacagggggg tcgtggagct gtagcagcca 60
 tatgtcaaga ccaagcgtcg gataccagag gttttcaact attgtgttca accatctaga 120
 gtaagatcat gcttacgttg tggcttgcta aatattgtga cttgttaaata aaagcttctg 180
 agtttgccgc agaaaaaaag ctccaatgca ttggaaccgg accagattta 230

<210> 11302
 <211> 444
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-003-Q1-E1-H2

 <400> 11302

ggtccgaaat taacgggtcg acgcacctcg ggggaccatg acaagtggat tgtgggcgcg 60
 gcaggagcca ctgtcatecg gcggcttcgc gcgtgacggg gtggcagact cgcctgtcaa 120
 tgtccttgcc tgcaccaagc tggttcagtc acggcaggcg tggtttcgat cagccccacg 180
 tgcaacattt tgcattgtgt cccgggggtg acgagccagg cagacccgcc agtcggcgctc 240
 ttctccccat gcttggctgg tttgattgca acatgcgggt cgtgcttcgc tccatttggc 300
 ttgattgcat attttcgaaa tgtcgcttaa agacattggc aagtccaaaa aatatgttat 360
 ggggcacatt tttggccacc aaatatatgc cgtctagttc cctaaataat atagttgata 420
 attatcatga tacatgtgtt taca 444

<210> 11303
 <211> 451
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-003-Q1-E1-H3
 <400> 11303

accggtccga gattcccggg tcgacgaacg tgaacctgga gggggtgaac acctccgccg 60
 tcctcgccga cgcctccagc accgtcgcaa ccatcatcgg caagccggag gcctatgtga 120
 tggttgttct caagggttca gtgcccatgg catttgaggg taccaggag cctgcagcct 180
 acggcgagct ggtttccatc ggagggctga acgctgatgt gaacaagaag ctgagcgccg 240
 gcattgcttc catcctggag tcaaagctgt ccatcccca gtcgcgcttc tacctcaagt 300
 tccacgattc aaagcgctca gactttggat ggaatggatc caccttttag acgcatcata 360
 tggcatggag ccttgcatga actccagagt tcctaattatt ctgtccattg cctatttaag 420
 gagaaactgc tgcagtaaga catcgtgtca g 451

<210> 11304
 <211> 448
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-003-Q1-E1-H5
 <400> 11304

taccgatccg aaattcgccg gtcgacagac gacagaaggg cagaaagacc acaatagtca 60

ttactgacat ccaaaggctc ggcttggtta acctcaagtg aaaacatgaa cttccggagt 120
 atgtcaatat aactatatta aagaatgtat gtatgccaga ggaagaaacc aaagctgaca 180
 tgtcctaatt tgacagtcaa agtaagtcaa cgcattagaa gacaagcata aggatgacaa 240
 ttatcaagac tgccaaactg aagactgggc gggcatttat acggtgttgt tagtaaaata 300
 cttgctcact tcagcacatc atgtctggac cctcagtttc aaggttttatc aactaattca 360
 atttcaaaaa tgaaattact ataattttta cctattcatt aaataatctg atccacgtgc 420
 cgaatatcca aatttaaatgc tctcaaaa 448

<210> 11305
 <211> 334
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-H6

<400> 11305

taccgatcct aaattcccgg gtccactagc tgtcgggtgag cgtgggaaag cattccctct 60
 agtaaagatc caagcgcgcc agggatgggt aggtcctttc tcggatcgaa ttggcgagta 120
 gatatttcac cttcctgtct ccaggaaggc ctctggttca tcctgtacat ctagcatggc 180
 tgttcattgt attttagttc tttctagtga gctcttatca gtgcagagaa atgatgctct 240
 tataagtgga aaataatgca acattcaggc cctgtttgga aactctggaa tccagcgttt 300
 aattaatgcc aaatgtatga tatgcaaaag aaaa 334

<210> 11306
 <211> 391
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-003-Q1-E1-H7

<400> 11306

cctgccggta ccggatcgaa attcgcgcgg tcgacgtctc accacgtgct ccgcctccgc 60
 gggggcatca tcgagccctc gctccaggcc ctcgcccga agtacaacca ggagaagatg 120
 gtctgccga agtgctacgc caggctgcat ccaagggtg tcaactgccg caagaagaag 180
 tgtggccaca gcaaccagct gaggcccaag aagaagatca agaactagag ctcgtaaaac 240

cgttattgcc gctttcattg tctggataaa tctgtagaca taaaatgttt ctgggttatc 300
 attttgctgc tcatgtcagg atgttgaacc ttgtttaact ctagatgagt acttggcctc 360
 gttttaatat cataactgaa gtgaaccgtg c 391

<210> 11307
 <211> 289
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-004-Q1-E1-A11
 <400> 11307

gtaccagtcc agaattctcg ggtcgacctg cccagggtggg tgcagtcctg cgtgcgctct 60
 gaggaggactg cggagggtgtt tgacatggag ctcttgagga accagagctc cgaagaacag 120
 atgattcagc ttcgacaact tgctatacac tgcgttgccc aggtcccaga cgcccgctccg 180
 acgatgtccc aggtcgctcg gcggatcgag gagatcaaga tgccagggtg aagcaccgag 240
 gaagctgata aggaagagca gagccccctg aatcaggggg attaaaagg 289

<210> 11308
 <211> 470
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-004-Q1-E1-A12
 <400> 11308

ctgcaggtag cgatccgaga attcgcggtg cgacatcaag ggtcgacatc tttatttttt 60
 ggattctttc tatgatgaga atagctcata tcatatgaac ataaaaaaga agattatctc 120
 aagctttata tgcaacttgg acgaagctcg gctccagcca atggatttca gtgcattccc 180
 tactgtttac cctaaagtcc ctcaacaaga taacgatatt gattgtggca ttttcactat 240
 gaaactaatg ggatgggtgcc caaggaatcc aaccctata gttttttcac caaaaaatgt 300
 cccagatgca aggatccgat atgctgttga tctcatgttc agccactaca acactttgga 360
 tgacgagaag aagcgtgtca aggagttccg cctatagaca tgaaaaagtg ctgacagctc 420
 ctaaaagaca ccactcacia tgacaatagg agctatatca agagtcatat 470

<210> 11309
 <211> 461
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-004-Q1-E1-B10

 <400> 11309

```

gtaccggacc gagaattccc gggtcgacag cagtcgtcgc cccgccaaagg tattggttcc 60
gcttcccgcg ccgtccccag tactgagatt cgactgaaaa ctaggttccg gttcataagg 120
tggttgcatg aggggtctgta tagtcgaggc atttgtgatt tgatcgtgca ctctgatgcy 180
acttcgagggc cgtgggttttag gtctagtgcg gtcgttctga ttttatggca atgtttgggt 240
ccttgagatt acaaagttat attcagtttc cattgtcggg tcgccgggta aaatagagtt 300
ttgatctgta tgtttacgat tctagtgcg taatttatgc tttgtgaatt atgagtcaga 360
ttaattgttg tttgacgact gttegcatta ttgtttttct gaacttgtag tacgttgcac 420
cgtcaggggt ttgatttatt tattttataa accgtggagt a 461
  
```

<210> 11310
 <211> 354
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-004-Q1-E1-B11

 <400> 11310

```

gggtcgacaa cttcaccagt gcatccagag cccgtgatat gatacgctct gtcacacatc 60
tgactcctgt agatcgctct caaatgagcc accacaccta cctattatgg gatttccata 120
cccatttcgg aatatattgg catgcaactt tcgaccaatc cgtttatcaa gacacattca 180
tcactgtcat attgcttacc aggatcatgt acttgacata gtatttgcg gtcagccatc 240
gtgtacaagt ccttcaggca tgtcactcgt ggatcagtcg ttatcacggg tcagtgcggg 300
atgcattcat aaatagtcac ctttgggtcta ttatccattt gtatccattg agtt 354
  
```

<210> 11311
 <211> 222
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-004-Q1-E1-B9

<400> 11311

ctgcaggtac cagtccagaa ttctcgggtc gacttgaacc taaagggccg cacacttaag 60
ggaaggaacc tattaggett gatccgattc catgagtcac atgtgatcct actcggacta 120
cgatccgggt cgaacatgat ttgggattta ggaactactt gaggcccaag tgttgacca 180
aggacccttc ccaatcaaaa ttgagggtga acacacacca tc 222

<210> 11312

<211> 427

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-C11

<400> 11312

attctcgggt cgacgtggca tgttaaattc cgggattggt agctgtggac tcgactgggc 60
cggcccatca ggcacgaagc gagttttttt tcttttaact tgggacctgg tatagtatag 120
ctcatccgc tagccactac tacatacagc tatgagtgac actataagtg gcccggtata 180
tttaagcaga caccgaagtg ttgaactttg ataaaaattt aggggtatac aaatattcaa 240
gacatatata cttttggaaa tgtccggaca ttgtataaag tgtgagcact ttttgagaat 300
tctgaatact ttaagaagtc aactattttt tgaagaagca atcaagtttg aataatcgaa 360
gacttttaca aagctgaaga atgcgaacac cttttgaaaa tttgtaaact gggaactaat 420
tttgaaa 427

<210> 11313

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-C12

<400> 11313

cctgcagtac cgatcctgaa ttcccgggtc gacattctcc aaaaagaaac caatgagtga 60
gctttcccag ttacggtata acgtagcagt gatggtgaac gtagcaccac tgtaaaccac 120
catggtggac aggatctcta gtcatacggg ggacctgcta atagcctacg tagacttgcg 180
cagttgaact ctaaggttgg tcttcaaagg taactcagca atctgaacac gtgctcttgc 240

tttagtcgcg atgatatctc atgcaggat tgatcatcat cgtagcatct ggatgggcat 300
 tcgaaagtga cattcgatcc gcagcagcta cgtcgtcgcg gtagatactg ccaactgaatc 360
 tatgatgagt gatctagtcg ccatggctag agatga 396

<210> 11314
 <211> 445
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-004-Q1-E1-C9
 <400> 11314

attcccgggt cgacagacga cagaaagggg ccaacagggg cgtgactaga atggagattt 60
 tcctctcact cgtgcgcttg ttggaacca gttgtgatgg gagtggatca ggagagaacc 120
 aagaaaatgg aaaaatgcct cttgagattg cgcagcacca gattatccca gcgacaggcc 180
 accttagatg agtgatcgag catgggcagc atcaaggcac ctttcaagag ctaagagcag 240
 gggttcagct cgcttctgca atgactagcg ttgtcagctc acgactagct ggtttcttgt 300
 gacgtaccac ggatctttct cacaaccggg cgtgcagaaa tcctaacaca gtagaaccat 360
 gaaggcatcg acaattgggt taacaaaatg atcactaaga agtgtttggg ttgtaaaatc 420
 tgtgttctctg ttttgttact ggtgt 445

<210> 11315
 <211> 460
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-004-Q1-E1-F10
 <400> 11315

gtaccgatcc agaattcccg ggtcgacaga agacgacaga agggcggttca tgattcgctt 60
 atagtggggt gcgtgagtga ctgaaacaca aaccgagta agggagttgt tgcgtatggg 120
 ataaagagga cttgatactt taatgctatg gttgggtttt accttaatga tcttttagtag 180
 ttgcggatgc ttgctagagt tccaatcata agtgcataatg atccaagtag agaaagtttg 240
 ttagcttatg cctctccctc aaataaaatt gcaataatga ttaccggtct agttattgat 300

tgcctagggg caaataactt tctcgtaaca aaaagctctc tactaaaact aattgagttg 360
 tgtctttatc taaacagccc ctacttttta ttacatgct ctttattatc ttgcanacct 420
 atccanaaac acctacataa tacttctagt ttcatacttg 460

<210> 11316
 <211> 67
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-F12

<400> 11316

tatggtgagt cgtattatac acatatagat ggatgcggca gtgtattcgg tcgcagttcg 60
 gtgtaca 67

<210> 11317
 <211> 438
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-004-Q1-E1-H10

<400> 11317

ggtcgaccag aaccgggcac ttgtggatgc tcctgatatg gtcaggtgcc agatgaactt 60
 caagcgtctt tcgctgaccg acatcaagat tgacatcaag cgtatcccta agacggcaac 120
 tttgatcaag gccatggagg aagcagatgt gaaaaccaa tgggagaaca gctcatgggg 180
 taagaagctt gttgtccaga agagaagagc atcgctgaat gactttgaca ggttcaaggt 240
 catgttggct aacattaaga tgggtggtgc gatcaggcaa gagcttgcca agctcaagaa 300
 ggatgttgct gcttacatta tcttagtgga tggcatgttg agttttttgt tccaagttgg 360
 atctgctcta tgttccagtg ttcttaaagc cagaattagt acaactgttt tcggagaact 420
 acttcatatt ttgtcatg 438

<210> 11318
 <211> 441
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-B12

<400> 11318

taccggtcca gaattcacgg gtcgactcga actgcaactc caagtcgtcg acgtcactgc 60
aactctatgg tgttttatga gagagcgaat agttgcatgt ctgctactac gcagacaact 120
gcaagtgtca cccagggctg tagctccatg gtgttttgtc cggaggggca gttgcatgtg 180
tgccactagg catgcatatg caagtgttcc cctgactgca actctgtgtt gtttttgttg 240
gggggggctag gttagttgca tgtttgtcat taggcacaca actacaaatg tggccccata 300
ttgcaactgg atgtgtacaa tgtgattgca actcaacggg atttggtatg ggaggagaag 360
ttgcatgtct accaccagac aaacaactgc aacttttata cccccctttc tcgactacaa 420
ctgtatgcca tcaatatgac t 441

<210> 11319

<211> 330

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-C11

<400> 11319

attcacgggt cgacagaaga cgacagaagg gctggatcga ttctaccac cggctaaacg 60
cgtaaattga cgcattgaca gacgtgcttc tgatctattc ccggtgagaa acacacgcga 120
gacacacaac acacgccatg cagaagaagt tggcgaggac gatgcctgga acgaagcacg 180
ggacatggag atcgttggcg gactgggagg cgagctggag cacggacagg agacgggtgga 240
gctcgtacgg ggcgaggagg actacatggc cgcggcttgc aggtgagcac gtggcagtca 300
ttaatttgat ctaggtcagc actcccagcc 330

<210> 11320

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-E10

<400> 11320

tctagaattc tagggctcag gacttatcca acatgctcga cttcggctcc aaagacatcg 60
acggtatgga cgagatgcag gagaagaaca ggaaccattg cccacagggc gctggactgc 120

cacctcatca tatgatatat acatggtgga ccccccaaa gaaagcaatg gcaataaggc 180
aacggaggat aatcccctcg agaagcaatc taagcaccga cgtcatcagc gccatagcaa 240
aagtagcgat accggcacaa gagacaataa cactacggat agtgccgaag acaaagacaa 300
tgccctccag ccagccttcg agcaggagga tgggcaagct agccctaaga aacaggcgac 360
agatggagaa tcagaagatg acagtcacat atccctc 397

<210> 11321
<211> 401
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-005-Q1-E1-E12
<400> 11321

acgccttcan gtagccgtcc agaattctag ggtagaccaa gccagagccc gtaatggctt 60
gcggtgcac aggtaaagctt ccggtcaatg gggatatccat ccgtctcttc gtggctgggt 120
gaagctttcc gcaagatgtc atggcgcttc tccatgcac ccgggcatcc gctggtttcc 180
agggtgcccg tcaaccgtcc tccaccagc agtgaatttt gaagtccatc ttgagcttga 240
cgtcatgggg ttgtcatcat cttgactctc acatttcctt tatgaatcac tcaaccaacc 300
ccgtctacga gcatagcaaa gtagactaca tcgtcccggg cattgggtac aaggagagaa 360
gggtcatcct accccatgaa actacttagg aacattactt a 401

<210> 11322
<211> 370
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-005-Q1-E1-E9
<400> 11322

gtctagaatt cacgggtcga ccggaatcgt cattgtccct ggatctggat ttggccaggt 60
tcctggcaca tggcacttca ggtgcacgat ccttccgcag gaggagaaga tcccggcgat 120
catctccgcg ttcacgggtg tccatgagac gttcatggca gagtaccgtg actaaactgg 180
tgtaacatgt gtgggattac atgcgagcct cgtggatttt ccctaggcgt ttttgcccc 240
gttgacagca gtatcatgta gacgagacaa aataaagcaa atccatggct tgtgtgtgtg 300

atatactata tcagattctg aaacagatta ccagtcagca cagaggtggc cgggcgaggt 360
gcgggtgggg 370

<210> 11323
<211> 434
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-005-Q1-E1-F9

<400> 11323

taccggtcta gaattccacg ggtecgacaac gacgacacac gggagggcgaa ggaaaaggctc 60
gaagagcaca acgagcccgt tcaagaacaa tcacacggag gatggcggat ccgtgttctt 120
cggagaggac acgaacaacg ggagccagca gttggagggg acggagaccg agaccgagga 180
ctacaccaag ttcacgggtgc tgaagctgaa gcaggagctg accaagcagg ggttcggcgc 240
ccagctgctg cagctgaaga accccaacaa gaaggacatc gtcgccttgt atgagaagca 300
cgtegttggc ggcgcttgac tgcctcttcc tcaacaatat gtaacacatc attttaactc 360
gtgtgctaata tctagatttc gtgcagcgtt gtgtgctggg gacacgtttt aggtcagatt 420
gtgaaacagc atat 434

<210> 11324
<211> 438
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-A5

<400> 11324

ggtccagaat tcccgggtcg accagttgtg cgtgcgacat gacgtcctcg tctaccacta 60
ccacttggcc acaaggcctt gcgagcattt ctccaggttt atcaacaact ccaactacag 120
tttcattata gtggacacca ccaacgatct aaaagcgctc aagggtttcgg gcttgaaatg 180
cccgaatctt gtcaacatcc agcactacta caaggtctag gggagagaca acaacaaact 240
gaactccttg gttgacctca cctcggccat cgccgacccc tactatacga agatgaagta 300
agagagcaag aagtacaaga acgcctagca cagtgtttgg catgagagac tcgatgaaga 360
acacgtcaag tacatggcca aggatgcgta cacaagctac gagatgtaca ggcggattgt 420

tgacatgagg aactgtct

438

<210> 11325
<211> 402
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-A6

<400> 11325

ggcatacaag aggggtgatgt tgtgacaatg tatgcttggg tctcacttca gcgtcgcagc 60
gggctaactg ccgcccttcc ccatgtcctt ttctatccgt tccacagggg agagaacttc 120
tggctgcttc tagcggacac cgcgtcaaac gaagtttggg tatcccagaa aatcagcttc 180
atggacgagg ctaccgccat aactgcagcg tcaaaageta tacaagatac ccaggaagca 240
ttgggagcaa gcccaaagga aataggaatt gcagttaggg aggcgggttg cagagtgaag 300
aaaggcagta ggctggatgat gggcaagttc caagccccat cagagggcaa ccacaacctg 360
acgtccttct gcttgtgcga cgcattggata ggctgtgaca gc 402

<210> 11326
<211> 433
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-A8

<400> 11326

ggtaacggtc tagaattccc gggtcgaccg agaagacgaa agaagggtaa gagcatttga 60
agcacaaatgc taagttctcc ttatcaatta tccaaacacc gttgtatggg taatgtcatg 120
aaatttctct ccccttacct aaagattttt ctatgttata tcctgtcatg gatattcatgc 180
cctgcttgtc cttgggaagg aatacccccc tgaaatatgt gtttaaacac attttccttt 240
ccattgttct gtttaacctg ataatacat tttcatttcc attgtottgt ttaacctttc 300
ttgaggctta tatgatctaa gcagtaataa tttgttgctt atgtaaacac cctgggtgtac 360
aaccttgtcc gtaagacaat gttactattg ctgggtgacat tttggtaacc accgatggga 420
caaaactttg cct 433

<210> 11327
 <211> 399
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-A9

<400> 11327

```

ggctctagaat tcccgggtcg acgacacttt ctttgagcta atacgcaagc agatctgcaa   60
ccagatactt tgtgttgtaa gcgggattgt acatgcggtg cctactgtga tgaggcactg   120
agatgaggaa ggctgattta ttattcataa atgcatatcc tacctgacca gatctgctgt   180
ccaggtcgta ccaaacggct cctgtttcgt cttcggcgag gatagctata gtgacagatc   240
cgatgacttt gcgtttgcac acattgtccc agtcataaac tgttatgggt acctatccag   300
aaagtaaaaa atacatcaca catttttagca agcacgtctc tggcatcaaa tgcgtgcctt   360
ggcatatctt gttttcgctg aaaacgtctc agtttcagc                               399
  
```

<210> 11328
 <211> 441
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-B2

<400> 11328

```

attctagggt cgaccataca ttaccgaggg ggcagcagag ccttgtcaca tgggccaccc   60
caagactgag tgaagataag gttaggcaat gtgttgactc aagacttgga ggggactatc   120
ctcctaaggc tgttgcaaag tttgcagccg tcgctgcatt gtgcgtccaa tacgaagccg   180
acttccggcc aaacatgagc atcgtcgtca aggcgtcca gccctgctg aacgcgcgag   240
cagcccaccc cggggctgaa cacgctggac gctaagctgc actccggcct tttgtatgat   300
ataatagata aggaaaaatg agccatcaat tggtgttctt gcggggcatg tggcaggcgg   360
tttttgatac tttgtgatta ttcttcccaa gttgtaaccc tcgagattct agtgacagaa   420
atatttgatt ctttgtatcg g                               441
  
```

<210> 11329
 <211> 437
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-B4

<400> 11329

attctagggg cgacttccac caaagcgata tccatcatct catcgaaaga cgggacacct 60
ttgcctctat caagtggat caaatttcca ggttgctcgg tgagatttta cagtttttcg 120
tagtttagat cgagtctgtt cttcatacct acagtccacg aaaaagccac acacaaaaaa 180
ttaggggttag ttcatcatat ccgaaccaat ctgagccttt gcataatctt tttaggggtt 240
tgctttgttg aatttgcggt tgcacgctcg tgtctagttg ctgggtcttag agtctagtct 300
tttagagttt cgagttctgg tcataagttg tcacgcccgc gccgcacat catcatcgcc 360
cctgccatct accaccagcg cttatccgcc accgcttcga atccgtatcc atataccacc 420
acagctgtca tatacca 437

<210> 11330

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-B5

<400> 11330

taccgggtcta gaattcccgg gtcgacctt ttttttat ttttttttt tttttttgct 60
ctttttttct ttttttttct acttttgctt ttttttttct aagccagtta ctagcgagta 120
taccaagat ggcacgtaca caaattggcc aaaagaagaa acaaaagtgc cttggccgag 180
tgctacagca aggaacggag actatgaaag ctagctagat gtgatttgga gttgagatta 240
gctagtacta gtcagccggc ggagattttt ggtgtggcgc gtgggtggcag actaaacctg 300
tgagatgtct ggtgcctcgc gtaacgcaaa gcctggtagt agatggcaaa cagcgacagc 360
gtcagacaca gataactgtg cgtctggctg ttcgcgtaac gcctgagtgc ggtaatgtgg 420
agagcgatcg taatcaacac ctggcttttt ttttgg 456

<210> 11331

<211> 416

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-B8

<400> 11331

caggtaacgg tccagaattc ccgggtcgac aaaagtaaca gttacaggaa atggtgagga 60
tggaatccga gccgttgata tctctagcgc tcatcttgac cgtcgcttct ctgaatcttc 120
ggtggtgca tctcttcgtc agtaaaactct cggcttgggt cctgacagtg gaaatgaacg 180
tcccggatgg atttcaattc aaaactaatc agtttcatct ctactgtata cttagaagta 240
ctattaaaaa ggagtcgcg gttgtgatgg tcgtaatggt ttcatacccc ctcccgctcc 300
accttgcttt tcttcatcga aacggttggt cacatgaaag agtgtgcatg atggccctat 360
ctagtgggtga gtggactgtc tattgccatt catggatagc ttgattgggt tgtcgt 416

<210> 11332

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-B9

<400> 11332

ccggcaggta acggtctaga attccccgggt cgaccgacag aaggggacac atccgatccg 60
atccaatcca gccccctcc gatctcgccg agaagtctcc gattgaagcg aagcgaagcc 120
aaggctctct cctcctctc ctaagatgca gatcttcgtg aagaccctta ccggcaagac 180
catcacctt gaggtcgagt cctctgacac catcgacaac gtcaaggcaa agatccagga 240
cagggagggc atccccccg accagcagcg tctcatcttt gctggcaagc agctcgagga 300
tgggcgcacc cttgcggact acaacatcca gaaggagtcg accctccacc tggttctcag 360
gctccgtggt ggtatgcaga tatttgtcaa gaccctcact ggcaaaaacca tcaccctcga 420
ggttgagtcc tcagacacca 440

<210> 11333

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C10

<400> 11333

taccggtcta gaattcccg gtcgactacc acagaaaaca atatctatct catcgaaaca 60

ttgggacacc ttgccttta tcaagtggta tcagttttca ggggtgctcgg tgagaatttc 120
 cagggtttcc tagattagat ttattttctt acctattgtc caagaaaaag ccacaaaaaa 180
 gttagatcta ttcatecttt gtccaagcta gtctgagcct ttgcaatttt cttttcattg 240
 cttgcatagt tgaattatcg gttgcatcgt cgtctcgagt tgctggctctt agtgtctagt 300
 tcatttagag ttctgagttc tgttcacatt agtcacgccg ccgctgcacg gttatccctt 360
 tcgctgtcca ccagccatcc atcaattttcc accacgtgct acccacggtt cattggcata 420
 atcatagttg aga 433

<210> 11334

<211> 428

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C11

<400> 11334

gccgccaggt accggtctag aattcccggg tcgacatcgt ctccgacacc gctgcttcct 60
 ctacgagatc gtctccaaca aactccatcc acgaacacca agtgcaccga cgtctagact 120
 aaaactctag atcaatttgt catggatgct catgttgagg aactgatgaa acctgaaaag 180
 tttgccggtg acaacttcaa gagatggcag tccaagggtg gtcactacct cctgtccaag 240
 ggctgtggt ggattatccc acaggttagg ccgctgactc gtcagcagggt aatggacttt 300
 gagttagcaa acgacactgt tgtggctgtc atcttgctgc tccttgagaa ccagctctat 360
 gatgtatacc atgggtacac ctctgcaata gagctttggg atgcgctgga tcgcaagtac 420
 gcggtctc 428

<210> 11335

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C2

<400> 11335

attctagggt cgacatgcaa cacaccatgc ggaccttctg caaaatgtag gagcggctcg 60
 ggtcttgctg gcagcggcgg cagcaacatc agcttccatt gaggcctaaag tgttcgccag 120

aattgtcctt aggaatctgg aacaccatca ggcagggact tcaacctgaa aacacaatgg 180
cgagcacaag cgcgactaat tctccaacag ggtatgactt ctaacctttg gccccagaat 240
ggatgcaaac tcgcgggttaa gttgtcgccg gcatttgaag ctgccgcgca agctgtgacc 300
ttggaacttc caccttgagg agaactgtca gaagagatga atgaacgttc aaccggcagc 360
tgttgagtgt gcaattttcc tgttgtttgt ctgatgtgta aaagtaactt aaaaagtgtt 420
agcgttagca tc 432

<210> 11336
<211> 447
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-006-Q1-E1-C3
<400> 11336

tccagaattc tagggtcgac ttcattcctg gccttaagaa gataggtctc cctaaatcgc 60
ggtatgaggg gagactgact ggaaaaggca cgcttggaag ggactcaata atatgcaggg 120
acggatattc ttggtctcaa gcacactaca tagttctaca gaactctacc ttggtgacct 180
cgtatgtcga tgaacacaag aacagcctgc gtcctaaaca cccggagcag tgcgacgact 240
ggattacatg tgaacaaatc aggactttca gcagttgggtt ggaagcacgt atcagaggtg 300
ataacactgt ttgtgatgag ctgtacttgt tgtccagggg accatctttg actgtattga 360
tttggaagg atacgagata aatgggaata cattttacac gattgaccaa gatcaaaaga 420
gcaccaacca aaacagcggg gtccgct 447

<210> 11337
<211> 445
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-006-Q1-E1-C4
<400> 11337

cgctgcagg taccgtcca gaattcaagg gtcgaccctc catctcgtcc tcagggtccg 60
cggaggcatc atcgagccat cctgcaggc gcttgcccgc aagtacaacc cggagaagat 120
gatctgccgc aaatgctatg cgcgcctgca ccctagggct gtcaactgcc gcaagaagaa 180

gtgtggccac agcaaccagc tgaggcccaa gaagaagatc aagaactaga gtgccactag 240
tcagtttcat gggccggttg aatccatcgc gtgtcggagt ttatgctatt atcgtctcgt 300
ttgtcgttga accttatttt actttgcttt cagcctcgta tcgttgtggt gataattgac 360
agtattggta tatggtagca gacctataat ttgcccgtat ctccctctgtt tgttctgcgt 420
tctgtttaat tattgactgg ttggc 445

<210> 11338
<211> 431
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C5

<400> 11338

aggtaccggt ctagaattcc cgggtcgcgc gagaagaagc agttgaacac gatgcgggag 60
atcaagggtgc agaagctcgt gctcaacatc tccgtcggcg agagcggcga tcgcctcact 120
cgagctgcca ggggtgttga gcagctgagc gggcagtcgc cagttttctc caaggcgagg 180
tacactgtca ggtctttcgg cattcggcgt aatgagaaga ttgcctgcta cgtgacaatc 240
aggggtgaga aggcaatgca gcttctcgag agtgggctga aggtgaagga gtatgagctc 300
ctgaggagga acttcagtga cactgggtgc ttggggttg gtattcagga gcacattgat 360
cgtgggatga agtatgacct atctagcggc atctacggta tggacttctt cgtgggttctg 420
gagcgagctg g 431

<210> 11339
<211> 466
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C6

<400> 11339

ccggcaggta acggtccaga attcccgggt cgacccttc tacatgcgtg ccaagatctt 60
gggcagcgct ggggaccggc aagtcgcgag ttcttacctc gaaggcgtca ttctggcaaa 120
ccaagataag gacaacttcc tcgtgcctta ctttccaag taagtcctcc cctcaaccgc 180
cccgtaacat atgaattctt agatttcgat cgtttttctt ttaacattcc gtgttttctg 240

cagtgcacaca cattgtacgc tcctcctcct aagccccaaa tattccatgg ccacgtattt 300
cgacccggac cgtcagtcga acgtagacta cacaaatgtc aagaagggtc ttgatgatgt 360
tctccccggc tacgtcaaatt ctggaggcac cttcaccagg cctattcgta agtacggcaa 420
gcacgtgttc tcgcacaaca cgacgttctg gtgcgtcaag cagccg 466

<210> 11340

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-C8

<400> 11340

ccggcaggta acgggtccaga attccccggg cgaccccttc tacatgcctg ccaagatctt 60
gggcagcgct ggggacccggc aagtcgagag ttcttacctc gaaggcgta ttctggcaaa 120
ccaagataag gataacttcc tcgtgcctta ctttcccgag taagtcctcc cccaaccgg 180
cccgtaacat atgaattctt acatttcgat cggttttctt ttaacatccc gtgttttctg 240
cagtgcacaca cgttgcacgc tcctcctcct aagccccaaa tattccatgg ccacgtattt 300
cgacccggac cgtcagtcga acatagacta cacaaatgtc aagaagggtc ttgatgatgt 360
tctccccagc tacgccaat ctggaggcac cttcaccagg cctattcgta agtacgaaa 420
gcacgtgttc tcccacaata cgacgttctg ctgcgtc 457

<210> 11341

<211> 341

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-D11

<400> 11341

ggtctagaat tcgcggtcgc acagtactaa caaaggatgat gtagatgctg agacagagcc 60
ggggagcaag ggaggggaag ctccatcagc tgctggtgaa gaagcagagc cataagattg 120
gaggcgatgg catcggtcgt tagaacttat gatggttatg agatctgttt ctagacgcga 180
ggtagaattt tgggtgtccc ctgaagttgg gtagtagagg tgggtgttgg tagcttttgg 240
cccggggcta tctgtagtgt tcaacgttat tctgcacctt ttgtttacga gtaaattgta 300

tgtgctttgc acgtcactta agtatataag agcatgggaa a

341

<210> 11342

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-D4

<400> 11342

tagccgtcga gaattcacgg gtcgacttgc aactgggatg aaacaagcta tgagcctgtt 60
ccaatgaaaa ggtagacttg caactgggat gaaaaacaaa acacatgctc tagttgtgag 120
tagaggggtga gcttgcaact tggacaacta cgagcctagt cttgagtcga gagggacttg 180
cacctgggac aactatgaaa ctacaagtca gttacgagtc aaggctcgaca tccggcaagc 240
ggtcgcagca atgccagta gaagtctgaa cagagcagac ctagagtata tgactagaaa 300
ggaacaagtg gatggggaaa gaagagcgag aaaaagatg gtggccttgac ttgttggtg 360
tgtgcagcaa aaattactag aaaatgatcc agcagaataa ggacaacttc caac 414

<210> 11343

<211> 459

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-D7

<400> 11343

gtaccggtct agaattcccg ggtcgacgca ttacggacc gtccgaattt ccgcctgtca 60
aagatccgca tcataaatgg gccaccattt cggcctgcta agaccagtgg gttatttggc 120
acaatcaggg cctaattctca ctttcggtct attaaagtcc catgtttttt atgggctcga 180
gatatttaca cctgtaaacg gcctattttt actgagggcc caaattatgt ttaggcctgt 240
taaaggccaa ctacgggcac atgcctacca gaaaaatatg aaagcttatg ctgatttagg 300
cccatatatt tttagtggct acatgccaat tttggcccggt agtcgttttt agcccaattg 360
gaatgggctc aacgaatatt ggcagtgttg gctcctacga agctttcggc cgaatacatt 420
actaagataa acctacacta tacaaaaata gcgtcgtaa 459

<210> 11344
 <211> 316
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-D9

<400> 11344

```
gccgccaggt aacgggtctag aattccccggg tcgaccatcg actcacaact aagggtgtgt 60
gtatttgtca aggggtcccca gttgcatgtc aaccatcaac ttgcaactag ggggtgtgtg 120
tgttgtcgat gccccagct gcaggtcgag catcgactcg caactaaggg tgcttttgtg 180
tgtttgtcta gagtccccag ttgcatgtcg atcatcgact cgcgactagg tgtgtgtgtt 240
tgttgagggg ctccagttgc aagccgacca tcgactcgca actagaggtg tatgtgtttg 300
ttgaggggtcc acagct 316
```

<210> 11345
 <211> 423
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-E1

<400> 11345

```
tccagaattc tagggctgac ttccatggca gggtcacccg ctccatcggc tccctctccg 60
gcgggatgta ctagtcagat ttcatccctt acgtcaactc atacacagag atctacatat 120
tggccaagtg ttcgtcgatc tgcaagcctg tttaagagct ggattggccg gtccaattca 180
acacggagct gtgtgtatgt tgaaactttt cgtccatcaa gcgtcgctc gccgcctccg 240
accgccccga cgacgccctt gccttcgcca acctccactc ctccatgagg tgatttgttt 300
cttgcaattt ggaagaggaa gatgatgaaa cgtggttggt atctatcaat atgccttggt 360
ttctggttgt acttcatagc tagttacatt gtattctgta ctggtctggt tgtatgaaca 420
cta 423
```

<210> 11346
 <211> 297
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-E10

<400> 11346

gtgttccgtc agacgattgc aggaaatata cttgttggca gctactgtgc attctctaac 60
acgggtggac tgggtccatcc tcacacatcc attgaagatc ttgatgatct gtccacactc 120
ctccaagtcc ctcttgtcgc tggaaaccgtg aaccgtggta ccgaggtcat tgctgcgggc 180
atgactgtga acgattggac cgccttctgt ggctcataca caacggctac cgatctgtcc 240
gtcatcgaga gcgtcttcaa gttgagagaa cgccagcccc caacgatcgt cgatgac 297

<210> 11347

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-E12

<400> 11347

ggtctagaat tcccgggtcg acattgttga aattcagaaa ataaaaccat ctgctcggct 60
agaggaagac tttgttgctt gggggcctga aaaaagtgga gtttttactg tacgtagtgc 120
gtataaactg gctagtgatg aatgctcaaa tcctaataaa gtctctacaa gttcccggcc 180
ggatggaaca agagaagcat ggaaatttat atggcaaagt tctgtaccac cgaaggttca 240
gtcttttctg tggagggttag ctacagattc gctagcaaat tggacaaata aagtgaaaag 300
gaacttgga gttctcaggta catgccttgt gtgtggatat gaggaggagg actcgttcca 360
tgtgttttgc acctgtaata atgctgtgtt cctatggaag gccatgggga acgaatggac 420
attg 424

<210> 11348

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-E2

<400> 11348

tagccgtcca gaattctagg gtcgacatcc aaccagatgc gcaagtcaag caggcgatga 60
atgagatcaa tgcagctgca aggatgaggg tggctgcaaa cgagaaggcg gaggctgaga 120
agattgtcca gatcaagcgt gccgaggggtg aagcagaggg caagtacctg tctggcctcg 180

gtatcgcccg ccagcgccag gccattgtgg atggcctgag ggacagcgtc ctgggcttct 240
cagtcaatgt gcctggcacc actgcaaagg acgtgatgga catggtgctg atcaccacgt 300
actttgatac tatgaaagag attggcgcgt cctccaagtc ctctgcggtg ttcattcccc 360
atggccctgg tgcggtgctg gacatcgcca cgcagatccg tgacggtctt cttcaaagcc 420
agtctgcctc tgac 434

<210> 11349
<211> 465
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-E5

<400> 11349

ccggcaggta ccggtctaga attcccgggt cgacatcgag ccagatgcgc atgtcaagca 60
ggcgatgaat gagatcaatg cagctgcaag gatgaggggtg gctgcaaacg agaaggcgga 120
ggctgagaag attgtccaga tcaagcgtgc cgaggggtgaa gcagaggcca agtacctgtc 180
tggcctcgggt atcgcccgcc agcgccaggc cattgtggat ggcctgaggg acagcgtcct 240
gggcttctca gtcaatgtgc ctggcaccac tgcaaaggat gtgatggaca tgggtgctgat 300
caccagtac tttgatacta tgaaagaggt cggcgcgtcc tccaagtcct cggcgggtgtt 360
catcccccat ggccctggcg cgggtgcgca catcgccacg cagatccgcg acgatcttct 420
tcagggccag tctgcctctg' acaactaagc agtttgcctc gccta 465

<210> 11350
<211> 442
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-E7

<400> 11350

taccggtcca gaattcccg,gtcgacgaat ctctggatat ggtgattcat gaaacccatg 60
gtatgatgtg taaacacagc caccctcgcg aatggaagtt gcatagcaca gtaatcatca 120
ccggtgatat ggtcgatgat tggttggatg atcagataat tgagcccgag gaacaatgag 180
tggttgctga ggctgtaaac ccgcctccag ttgaatacgc ctggcccaac ggagctggga 240

tctttctcga acacgaagca gccatagcca tcaatgtcac gaacgcccc a tgaattgtac 300
 tgcattgtgt ttgatgtaat ggttttgtca atttggtacg tgcgaatgag catcaaata 360
 ccgctgtcag ctgaacgagt gataaaccac caccattga ccggtatgat tccaggtcct 420
 ggaatcatga agccagcac at 442

<210> 11351
 <211> 448
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-006-Q1-E1-F3
 <400> 11351

attctagggt cgacgaagga ctacattcaa gtggaccaac caattccctt tggtttaata 60
 aacgtgaagc cagtgtccaa gtcctgaag acagatttct agaccaagac cgccctagca 120
 aaagtggcat gatatacaat acatcttaca atatctgtca cagcaccatc aacaacatac 180
 agattgtctt catcttcgtt atcgtcgtga ctccctgga ttttcgttgt ttgttgtaa 240
 atttatctcc ctccgtagta gtatcgtgcc ccccgcaact aatctgtgcc tagcagagct 300
 gagccgagct gaagtagtag ggctgtgttg ttgtgtcca tccatgtcag tgtacatatg 360
 attagcccggt gtaaagctaa gttttatatg ccgtgtaatg tggtagtgc gttgggtcag 420
 aggaagtat tgaccgctg ttgttttt 448

<210> 11352
 <211> 456
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-006-Q1-E1-F7
 <400> 11352

gtaccggtcc agaattcccg ggtcgacaaa tctcgacca tcccgagaat gtttttctcc 60
 cgctcacgaa acgagattag aggggtgcaa cgggtgcatg tgggagtgtc ggattgcgac 120
 acggacaatg agaaaaagac cggatgcatg agatgaacac gaatgcaaat gagatgcaca 180
 tgatgacatg atatgaaatg catgacatga acaaaatgca aatgaaaga caaaaacca 240
 accacgaagg aaatatcata tcacatagcc ggaaatggca agagttggag ttacaaataa 300

ggaaagttac atccggggtg ttaccacact ccaccactac aagaggattt cgtcccgaga 360
tctaggactg aaagaactcc ggatatttat aacagatctg atcctcgtgt tcctagggtg 420
cttctcggtc gaaatgggtg gaccacttca cgttca 456

<210> 11353
<211> 425
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-006-Q1-E1-F8
<400> 11353

tacaggtcta gaattcccgg gtcgacgtcg aggaagaaga tggacacgcc ggagatgacc 60
gtggtggcct ccgccacgc aggcaatggc gaagctctcg gcggtgccct ctgttctctg 120
tctctaaagg aagaaggaga aacagaggaa gggaaagggg gccggcggcg agagggaaac 180
cctaggggcg cgggttgctg gatttatagg agggccagga agcatcgagg ggtcgcggtg 240
aaaccacggt ggccatgtgt gggcaccct agaggtttta ctgtgagaga aaagagatca 300
ggaggaggaa gaaaaaacag gggaaggaga ggctgcaggg ggggcctgga cgggtgtcca 360
atgtggattc accacgggag agagcgaggg gggctgcgct gaggctcctg ctggactggc 420
ctggt 425

<210> 11354
<211> 344
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-006-Q1-E1-G3
<400> 11354

cgcctgcagg taccgtcca gaattctcgg gtcgacatcg atggttcggt cagtgggaaa 60
tcgatcctac acctagccta acggcctaac caccgagcta acaaaggggg aggggtgctg 120
cttaccggca tcggagacga ggacggcgta tggggagcca tggcacagac aatgtcgaac 180
aaacggtggc caacagcaag gggagcacca gatccgccgc aaacaccgcc gcctcttccg 240
ccgccgccgc ctctacgttg atctaaaatc gcagcccggg ccggtggtaa aggagtaaga 300
aaaaaagggg gtactggtaa tggtagacca attgaaaaag gggt 344

<210> 11355
 <211> 460
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-006-Q1-E1-G6

 <400> 11355

 gtaaggtcta gaattcccgg gtcgaccttg cagaggtccg ttctcccgga atgcccaccc 60
 cttattcttt ccgtaagtac gatgaagatc ccgaagaatg gatgtgtact acatcatgat 120
 gacctgaagc agagatatga agacatcaac attatggatt gaccgcttcg agaagagcaa 180
 ccaagattca gaacgctcgt tagaatttcg taaccaaadc ctttccccct cacttcccct 240
 cataaatctc gggacgagat ttcttgtagt ggaggagatt tgtgacaccc ggataattag 300
 gctacagtaa tcccgcgtta acgatgccac gtcacctcgg ttactgttgc taatctcgcg 360
 ttagttcgaa accgattcaa attcaaattc aaaatcaagc aaacaataaa agttttcaaa 420
 tattagaact aaaatgtatg gagtgaacca aataatgttt 460

<210> 11356
 <211> 437
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-006-Q1-E1-G8

 <400> 11356

 ggtctagaat tcccggtcgc acaagttcag tatcaagatc ctccgagagg aatttgagcg 60
 agccgccaat atattgcagt atgatccaaa cccaagtgtg aagctctttg agccgtatgt 120
 gccccctcct ccatctggga cccttgacga ggaagggatt cttagtaccg cgggagctat 180
 aatatgatga tactacaaac ctgtatcatg gaaccctttt gtttacctgt ttgttatggc 240
 ttacctcagt tgtgcatagc tgtacaatag atgcttagtt gtaaagtaac tagatgtgat 300
 ggtaggagta tgtacctgct atataagggg gtctagctat tatcatcaga tccagagtct 360
 tgattaattg tttcgcgtgt acaaggcgat gtttggaccc gacgactgaa tagattagta 420
 aaataagtct gctgaca 437

<210> 11357
 <211> 363
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-006-Q1-E1-H11

 <400> 11357

 gcctgcaggt tacggctctag aattcccggg tcgacagaaa tctggtggag ctaactgtga 60
 cctgcttggt gtggccctcc catggtgctc ccggttgcca cacgtccatt cggattcttg 120
 gggggaccac ttctccttcc gatggtgcgg catctttttg atccggacgg atgtcaatgt 180
 gcccatgtta ttcacagtc atgagtggac ttgggctctc acctttcaca ttggtgccgc 240
 caacaggttt tgtgctgctg gtcgagtgcg agctgctttg gcggacgacg acctcgatgg 300
 atcaagctca tttcttcggg tcaccttgag agttgcttgg gttgtactcg gtctgcacac 360
 agg 363

<210> 11358
 <211> 388
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-006-Q1-E1-H2

 <400> 11358

 ggtacccgtc cagaattcta gggtcgacct gcacactttg gaaggctctc tggtgcaccg 60
 tcttgaaagg aaggcacaac gtcctcgga ggcgtctcaa gcagcagtat ccagtcgccc 120
 gggcttacgc accccacctg attcttttca tggcaacaaa ttacgtagcg attgccgggt 180
 tcgtcgagct ctctatcttg agcgaacaag ctgccagaga ggcgagggcat cctggggcac 240
 ctgcgcctgc gccttcctct gtcctcctcc cctagctcgg agcagcatcc aaattagaaa 300
 agtatactgc tgggtgctaa gttaaaacca ggtagcagt tgggtacttaa ttcagaatct 360
 ttctcgagc tgggataagg tttgtggc 388

<210> 11359
 <211> 444
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations

<223> Clone ID: LIB31-006-Q1-E1-H4

<400> 11359

attcnagggg cgactgggtg acatcagttg accatcagag gtgcttcgga aggccgtgaa 60
tcacattatc tagaggttgt tgggattgct gacaacgacc agtccatcag tgctgagagt 120
tgcaaagatt ttggtgacga ctttgatgct gatgcgttca atgggctgtg caagcttgtg 180
gtgaacgtca aggtgaagga agttttcctg tagaggaagt catttgggag atcaagctta 240
ctatgaagac agtttgtgtt gtgtgtgtct cccggagtcg atgagcttat tactgccttc 300
gctttagta actagtacta gtaagcaatg catagcagac ctttaagttta tattatcggt 360
gcttggattt aaatcctgga actggaaggt tgcattttgc gtgatgcctg agctctttct 420
cccattcacc ttgatgaaga actg 444

<210> 11360

<211> 434

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-006-Q1-E1-H6

<400> 11360

cctgcaggtt acggtctaga attcccgggt cgacggcaac aacggcatcg tcggatccac 60
caccggcagc aactactatg tgccggtcct cagcaccatc aaccgcgagc tgctcaagcc 120
gtcggcgctc gtcgccctgc accgccactc caacgcgctc gtctatgtgc tgccgcccga 180
ggccgactcc agcatatcgc tgctcgcttc atcggagaag cccaacgtcc tatattcgga 240
cattggagga tgtgatattc acaagcaaga aattcgggag gcagttgagc tagcattgac 300
acaccatgag ttgtacaagc agattggtat tgatcctcca agaggggtgc ttctctatgg 360
tcctccaggc actggcaaga ccatgcttgc taaagctgtg gcacatcaca ctactgctgc 420
ttttatcaga gtgg 434

<210> 11361

<211> 415

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-009-Q1-E1-A4

<400> 11361

tctgcaggca cccgtccgga attcacgggt cgacgaggag gaggagcctg aggaggagct 60
aggaactgaa tatctggtgc agccgcttgg ccgtgctgaa gacgaagagc attccagtga 120
ctttgagcca gaagaaaatg gtgatggtgc tgaggacgag gagattgagg atgatgatgc 180
tgaggatggt gaggattctg tcaaggcgca atcctcttcg aagaggaaga ggtctggcgc 240
ggaggatgaa gatgatgatg acggtgatga tgatggtgat gatgatgaga agcctccatc 300
aaagcgatag tcaatttggt cttgctgacg tggatatctt tctgcttgng ccaagaagga 360
aaataatcct cacggagaag gttgttggtg aatgctgtag ctttangaca tctgt 415

<210> 11362

<211> 440

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-009-Q1-E1-A5

<400> 11362

tgcaggtacc ggtccagaat tcncgggtcg actttcactg taattatcaa actcctcata 60
gacttataga tatctgtaca ctcaaaacg cattagtccc ttaacctata agtcttcaat 120
acacaaaaat cactaagggg cactagatgc acttacaaga ataatttgag gtgtcttttc 180
cccgcagcaa cgggcgcacc gtccttatcg ttctttaccc gcgagtctcc cgcgccgtgt 240
atttcgaccc ttccagagac tacgagaaaa aggactacac ccacataatg aatattctag 300
atgatgctct ccaaggcttc agcattagag gtggccacat gcagatcaag aaacagagga 360
acaagaagat gggtttcgca cataaaacta acttctcctg catccatgtc ccaaaaccaa 420
ccaagaatga tggattctac 440

<210> 11363

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-A7

<400> 11363

taccggtcca gaattcccgg gtcgacttcc atcagtgaga tattcatcat cacatcaaca 60
gacgggacac ctttgccgct atcaagtggg atcagatgtc caggttgctc ggtgagattt 120
tacagttttt cgcagttaat atcgagtctg ttcttcatac ctacaggcca cgacgaagcc 180
acagtataaa aattaggggt acttcatcat agccgaacca atctgagcct ttgcataatc 240
tttttagggg ttttgctttg ttgaatttgc ggttgcatcg tcgagtcaag attgctggtc 300
ttagagtcca ctcgtttaga gtttcgactt ctggtcataa gttgtcacgc cgccgccgca 360
ccatcatcat cgccttgcca tctaccacca ttgcttatcc gccagcgcgt tgaatccgta 420
tccatatgcc accaccg 437

<210> 11364
<211> 452
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-B1

<400> 11364

tggtagtct gcagggtccc gtcggaata cccgggtcga ccccttctac atgcgtgcc 60
agatcttggg cagcgtggg gaccggcaag tcgaggttc ttacctgaa ggcgtcattc 120
tggcaaacca agataaggat aacttctcgc tgccttactt tcccagtaa gtcctccct 180
caaccggccc gtgacatatg acttcttaca ttctgatcgt ttttctttta acattccgtg 240
ttttctgcag tgacacacgt tgcacgtca tcctcctaag ccccaaata tccatggcca 300
cgtatttcga cccggaccgt cagtcgaaca tagactacac aaatgtcaag aaggttcttg 360
atgatgttct ccccggtac gccaaatctg gaggcacctt caccaggcct attcgtaagt 420
acgacaagca cgtgttctcc cacaatacga cg 452

<210> 11365
<211> 450
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-B10

<400> 11365

taccggtcca gaattcccgg gtcgaccagc cattagcttc tgaaagtaat gattacacaa 60

actcctggcc tggaaatact tttcaaccag acgttgggtct tggatctatc ggcttttagct 120
 cttcttcaca tgattaccag tcttctgctg caaaacactc agtgccacta tcagtggata 180
 accatgtgcc tgccatggga acaggagctt tgaacagttc ttacagtcac catatggcag 240
 gtagtgggaa ttcaacctct gttgctgggtg acacgcaacc gatcatgagt gatgcttttt 300
 atattgaccc tgatgataag tttatgggca gttcttttga tggactgcct tttgatttca 360
 tcggtattaa tagtccaatt cctgaccttg atgaactcga tgaactgccg gatgacaatg 420
 atttgatgca atatctggga acgtaatcca 450

<210> 11366
 <211> 402
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-009-Q1-E1-B2
 <400> 11366

ggtcctaaat tcccgggtcg acctgctgga agagggccag ttcttagcac tcagccggtc 60
 cgccatctac cagcagggtt tgccgcatca ccacaaccgg aagggtcaagc caagatcctt 120
 ccaagaaggc gatcttgtgc tccgggtgat ccagcgaaca gccggccagc acaagctctc 180
 ggcccatgga gaaggccctc tcgtcatcag caaggcccta ggcaacgatt cctaatacct 240
 gatcgacgca cagaagccga aggcacgcaa gagggatgat tctggcaagg agtcggaacg 300
 accatggaac gccaatctcc taagaagatt ttacagttaa aagcagtatg taccacgcta 360
 ccttttgtat taagtacaag acaacggggc ccccgagggtg ca 402

<210> 11367
 <211> 402
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-009-Q1-E1-B3
 <400> 11367

cggtccggaa ttcccgggtc gacctccgtg tgcttctcgg caaggcatcc aatggaagct 60
 ttcccctatg gtcattgggtc atgttctcgc cctttctctt tttcatccat ctgtttgtgc 120
 tgttgccggag atttgtgaaa aatgagccct tgtacaccga gatagcagac ggagtgtatg 180

ttggaggctg gccttcttca gttgaacgcc tgccacctgg tgaacccgca gtcacgcatt 240
gcacgtgcga gctgccaaaga agctcaacta tatccgagaa ttcataatttg tgtgtcgcta 300
catgggatac aagggcgcct cagccaccac agattgagtc agcgggtgcgg tgggccgtga 360
gaaagcggtc acagaacaga cctgtgtatg ttcactgtgc ct 402

<210> 11368
<211> 380
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-009-Q1-E1-C11
<400> 11368

ggtagcagtc cagaattccc gggtcgacgg atttgccgtc gagatcacccg acgctcaggc 60
gagcgtgctg aggtcggcca aggaggtgag ggtggtggag aagaaccagg agcttgattg 120
accagccaaa catccaggca gtcagaagca taatcattta gatgcttttg gcatctgcc 180
tagctatgga agcttggttt agtataagcc aaggctggag aacgcttgatc agttgctatt 240
agtcaattgc ttttgccggc taagtgtatc gatcgggtgtg tgtttttgtg tgatctccca 300
tggctttgtt gactctaattg tcaagatcaa gcttagctgc tatcggtata tactagtacg 360
tactactact actattta 380

<210> 11369
<211> 372
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-009-Q1-E1-C3
<400> 11369

gggtcgactt ccatcaatgc gatattcagc atctcatcga ttgacgggac agctttgcat 60
ctatcaggtg gtagcagatt tccaggttgc tcggtgagat ttacagttt ttcgtcgcta 120
agatcgagtc tgttcttcat acctacagtc catgagtttt gccacaaaaa aaaaattagg 180
gttagttcat catatccgaa gcaatctgag ccggtgcata atcatttttag ggtttttgca 240
ttgttgaatt tgccgttgca gcctcgtgtc aagttgctgg tcttagtgtc tagtcattta 300
gagtttcggg atctgggtcat aagttgtcac tccgccgccg caccagcatc atcgcccttg 360

catctaggag ca

372

<210> 11370

<211> 421

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-D2

<400> 11370

ccggtcctaa attcccgggt cgactccgag gagctcaccg tcgaggagcg caaccttcta 60
tcggttgctt acaagaatgt tattggtgcc cgccgtgcct cgtggcgcat catttcctcc 120
atcgagcaga aggaagagag ccgtggcaat gaggaccgtg tcacactcat caaggactac 180
cgtggaaaga ttgaggttga gctcactaag atctgtgatg gtatcctcaa gcttcttgat 240
tcccaccttg tcccctcatc cactgctcca gagtccaagg tcttctacct aaagatgaag 300
ggtgattact acaggtacct tgcggagttc aagagtggaa ctgagaggaa ggatgctgct 360
gagaacacca tgggtggcata caaagctgct caggagattg cactgaaaga gctgccccga 420
c 421

<210> 11371

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-D8

<400> 11371

ggtaccggac cagaattcgc gggtcgacgg gaaaccaatt gcgatgacag aggatcatcg 60
agtagtcagt accacagaac gagcgaggat agcgaaatta gggaatcccc tgaaagatgg 120
cgaaagccgt atatgtggac tgaatctttg caggatgctt ggagacaagt ttctcaaaga 180
gcaagatcca aggttcagta aggaaccata tgtgagccca gtagttcaga tctcgaaatc 240
atgctcagct tttgcgctta tcgctagcga tggcttatgg gatgtcatta ccgcgaaaaa 300
ggcagcacag cttgtcctcg attataagga gaggaacatg ggccaagaaa tctcagcgga 360
cggagtagca gaccatgtgc ttagtgaagc caggaatctg cggacgaatg acaacacatc 420
cgtgat 426

<210> 11372
 <211> 225
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-009-Q1-E1-E1

 <400> 11372

 gtccacgcaa ctccttaaag tgagtcgtat taccacacct tcctcgccgt gcctacaaca 60
 tgttcacaac tgtcaaaccg gaagcggtcc tggctaaatc tacgtttcat cgctacgtag 120
 tcaatgttgc atgtcactgg tgtgttttca cgctgccgca atgctatgaa aacgcgatgc 180
 aagcagcttc tcaaacttgt atcgttgtaa cttgtatgac gccag 225

<210> 11373
 <211> 429
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-009-Q1-E1-E3

 <400> 11373

 cgggtcgaca attggacaca gccacagaaa ttgctgcttc aaagggcgat gtccgcttgg 60
 cagtcctgct aagccaggca ggtggatcga tgttaaatac ctcggatggt gctcagcagc 120
 tggatctgtg gaaaataaat ggtctggact tcgattatat tgaggaagac aggttaaaga 180
 tatacgagtt gcttactggt aacatacaag gcgctttact tgattcacca atcgactgga 240
 aaaggtagct tgggttaata atgtggatc agttgtcacc agatacatca cttgatatta 300
 tcattcggtg ttatcaccaa ctacttggtg agggcaaagt tccaaatcct gttcctgtat 360
 acatcgatga aggacctctc gaggaagcaa ttcagtggtc cccaggtgac cggtttgaca 420
 tacctttttt 429

<210> 11374
 <211> 224
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-009-Q1-E1-E6

 <400> 11374

tcgtagttca acgcaacacc ctatactgag tcgtattaga gccggcctga ccttgctgat 60
gacaaccagg acgtcttcat gcatgtgcc ctaaggacct gcgttcgga gccgcaatcg 120
tcggcattga gtctttaaat cactattgag aacctgacac cagatcgac tattgcattc 180
acacgatgag aagacctacg ttgtttcaag aagatgggca gatt 224

<210> 11375
<211> 389
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-009-Q1-E1-E8
<400> 11375

actcgtgggt cgacgcgatg cccaatcgtg agtcgtatga tggattgtc ggcaaatatg 60
gtaccggtta tgggtgccagt ttgcgtaagc agatcaagaa catggagggtg tctcagcact 120
ccaagtactt ctgtgagttc tgtgggaagt ttgctgtgaa gaggaagca gttggaattt 180
ggggatgcaa ggactgtggg aaggtgaacg ctggcggtgt ttacactatg aacactgcca 240
gtgcggtcac tgtcaggagc actatccgtc gtttgaggga gcagactgaa gcataagttg 300
ctactaatgt tttgtcctag tgaatcatct gggatttcgc agtttagacg ataccttgga 360
ttcagttcca ttggctgttt agtcaagga 389

<210> 11376
<211> 445
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-009-Q1-E1-E9
<400> 11376

tgtcacacct gcaggcaccg gtccggaact cacgggtcga cagcttgtgt ggtcaacatt 60
ggtgctcaag ttacacaagt agtttgtgtt gaggatggag tagctttgcc tcacacagct 120
ttggcgcttc catatggtgg agatgacata tccagatgcc tactttgggt tcaacaacgt 180
catcgacat gcccaaactt taaaaccgat cccatgaaga agcctataga tatgctaattg 240
ctcaacaaga taaaagaggg gtatagccag ataaggagcg gaagttatga tgctgtttct 300
gttgttcatt catatgagca tgaaaagtct gttgggcac agaagacaag gctgtcagct 360

ctcagtgttc ctctatggg gcttctttat ccccggttc tcattccaga agagtccct 420
ccacctcccc gaccttggtt ccacg 445

<210> 11377
<211> 403
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-009-Q1-E1-F10
<400> 11377

cccggtcga ccattttcac caatgtgaaa cttccaaaag tagttgctga agctgtcaat 60
agatactggt ccactctgaa gattatcttt gatcatcggg catgggatac acggaccatg 120
gagtctctat gccgatcttg caaatttgct gtaaggacat gtgggaggtc catgggaatc 180
accattggtg caatgctgct agaaatccaa aactatatc agcaacacaa tcagtcttgc 240
ttcctttact tatccagtga agttattaag atatttggat ctgatccatc ttgtgcgagc 300
tatcttacat gtctgataca gacactcttt aatcatacaa tacaactgct cagaactatt 360
caagatttta cagctagacc cgacatagct gatgattgcc ttc 403

<210> 11378
<211> 398
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-009-Q1-E1-F2
<400> 11378

tcgtagtacg tcgcaactcc ctaaactgag tcgtattaat cgtggccgta ttgcttcaga 60
ggaaagcaga ggaagctgga tgctctgac cgtacattcg ggctcggaca tatctcggtc 120
aactggagcc cgaaacacgg cagtctacac gtcagccgga ccacaagaag caggcgcttg 180
tcttgctttt ccaaattcca acccgcacg ccaactccct tcctcggtca agaaccgacg 240
gcgacatggt ggccaccggc gagctgcagc ccctggcgac ccagccggat ttctcagagc 300
tgcccgagct tctccggcgc aaagtcgcgg gagagccgtt gccatcttc atccacgagg 360
ttaacgcta ccctgcagtt tggcaaatac acgttaat 398

<210> 11379

<211> 393
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-009-Q1-E1-F4

<400> 11379

gggtcgacat gccgcggata cagagcagtg tgcgggggtgt ccgggaggag agctgtttca 60
gggctggctc ttcttggcgc cgctgcctct tgcgcgaatc tcctcgccgt gcccatgccg 120
gtgcaggcag caatgctgga gcccgatgtc atcaggtaca gaaagctgga cagtggagta 180
aagcttgaag atgtagtcga tggcgaaggg ccggaggctc gggaaggcga ttagtgcaa 240
ttcaactacg tgtgccgccg tgcaaatggt tatttcgtgc atagcacggt gaatcagttc 300
agcggcgaga gtaagccggt gacacttcga ctcgacgtgc aagaggttcc angacaggat 360
ttctcttggc aattgacctt tctgcagatg att 393

<210> 11380
<211> 312
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-F5

<400> 11380

attcccgggt cgacacagac aattccatcc gctgcaagtt tgagaacctc aaaatccaat 60
ctagagccct attctgacat cttgttggag gggaacacga ccatggaggg gttcatcatc 120
ctcattggcg ctccctccga gaggcacgaa taattcacca cagaactatg ggtccgtaag 180
cagtagctaa atgggtgctg ccctcttttt aatctcagta gaatgtgcaa ctctatgttc 240
ttggagatct acttcatgta atgacgtttt gcaatgcgtt ttttgggatt ccagtgaatt 300
gtggagttta cg 312

<210> 11381
<211> 216
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-F7

<400> 11381

gtaccggacc tacattcccc ggtagcagag gtgaccgaaa acgacatcag ggtagcatgaaa 60
 gtttagtcctt tcgcctactg aagcactggc atcatcaagg ccatacactt agaccgccaat 120
 caatgaggca aatatggaca cacctacgtc gactgcacat ccatgattct cggaggcggtg 180
 cgtttgcaact gcactttaac ctaccgaccc gttttc 216

<210> 11382
 <211> 400
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-009-Q1-E1-F8
 <400> 11382

ctcgcggggtc gacactagcc ggacgatcgt tgcgatcaaa tgcaaagatg gaattgtcct 60
 tgggtgtggag aagctgataa cctcaaagat gatacttgcc gggtcgaacc ggagacttca 120
 ttctgtgcac cggaactctg gcttggctgt ggctggatta gcagcagacg gtaggcagat 180
 agtctcaaga gcaaagtcag aagcagccaa ttatgaaaag gtatacggag aacccatgcc 240
 tgtaaaggaa ttagctgata gcgttgctag ctatgttcat ctgtgtacac tctactgggtg 300
 gctcaggctt tttggctgtg gagttattct tggaagctat gatagggatg ggccacagct 360
 ctacatgata caaccttcat gcctctcta taattatttt 400

<210> 11383
 <211> 424
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-009-Q1-E1-F9
 <400> 11383

ccctgcagggt accagtccag aattcgcggtg tcgacaatgt accgaatcct cttcttttta 60
 tgagaacagt tattcaagca ctcgatgctt tccagcttt ggttgatttt gtcatgggga 120
 tactttccag gcttgtcaat aagcagatct ggaaaatgcc aaagctgtgg gttgggttct 180
 taaaattggc ataccagact caaccagct ctttcgatgt tttattacag ttacctccac 240
 cacagcttga agttgcattg aataagtacc cgaatcttcg accacatctt tcttcctttg 300
 ttaatcgga gaacttgca aacaagttgc ccagacatac tttgaatatt ttgggcttcg 360

ttaacgaacc acagcaggca ccaatgccat ttgcgcccgc tgcattacaa acagcatacg 420
cgac 424

<210> 11384
<211> 193
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-G6

<400> 11384

gcatgcgcgt agtactttgt ttcgatgact aatagatttt tgcaagaagt atgtcagttc 60
tttatgacga atgttgagtc catggattat acgcactctc acccttccat cattgctagc 120
ctcttcggta acgtgcaatg gcctttctca actcgaagat tgggtgcaaac ttccgcggtg 180
catccaaacc ccg 193

<210> 11385
<211> 432
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-009-Q1-E1-H4

<400> 11385

ggtccgagaa atccccgggtc gaccaagctc gaagagatca attcatattt gtggtcggcc 60
tcgctgggtg tttgttcttt tattttcggc agttagctgc atgctctggt tgacctcatg 120
cagtctctc acggttctat gggcgcttct cattgctctg cttacaacgg tacttcatgc 180
cagcttcaga acacctaatt tgaaagcacg tctgaatacg ttcagagagg aattccgagc 240
agtttggcgg aattatagtg agctctagag ctccctcagt ttcaagggtga taagatgtgc 300
ttagcgctga agcttccctg ctgtctgtgc attgtgtctg tgggagatgt acaaagggtga 360
tacgcagttg tgattactgg ctcatcttga ggtggaccag gaccgactct gtangtgatg 420
ctatgcctcg gt 432

<210> 11386
<211> 444
<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-009-Q1-E1-H9

<400> 11386

```
cacctgcagg caccggtccg gaactcgcgg gtcgacacat cacccaatct tgctccgaaa   60
gatttccggc tgtttaagtt tgtaaatgat ctccaagctc tgattagccc ccctgccaaa  120
ggaactccac ttccgctgat cttacttggg aagtcgaaga acgcgatgct gtcaactttc  180
ctctttctgg accaaattgt ttgggctggg agaacaggag tatacaagaa caaggagcga  240
gcagaattcc ttggcaggat tgccttttat tgctttcttg gatctaatac atgtactacc  300
atcatcgagc tagcggagct tcagcggctt tccaaatcga tgaagaagtt agagaaggac  360
ctcaagcacc aagagctgta caagaacgag cagtatcgga tgaagctgaa gaagtccaat  420
gagaggctgg ttgctctcaa caaa                                           444
```

<210> 11387

<211> 462

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-016-Q1-E1-A2

<400> 11387

```
cctgcgacgt accggtccga gattcncggg tcgacgagat gacgaagcgc accaagaagg   60
ctggtattgt cggcaaatat ggtaccgctt atggtgccag tttgcgtaag cagatcaaga  120
agatggaggt gtctcagcac tccaagtact tctgtgagtt ctgtgggaag tttgctgtga  180
agaggaaagc agttggaatt tggggatgca aggactgtgg gaagggtgaag gctggcggtg  240
cttacactat gaacactgcc agtgcggtca ctgtcaggag cactatccgt cgtttgaggg  300
agcagactga agcataagtt gctactagtg ttttgccta gtgaatcatc tgggatttcg  360
cagtttagac gatactttgg attcagttcc attggctggt tagtcaagga ttatctttgt  420
acttggtgcg atgatgttct gttatgttat tctcccaccc tt                                           462
```

<210> 11388

<211> 419

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-A3

<400> 11388

gggccgagaa ttccgggtcg accatagagt gcaagtctct ttcaagatcg gagcttatga 60
agacactttg gagtgtgatg tccttccgat gaccgtttgc cacctccttc ttggacggcc 120
atggcaattt gaccgaggtg tcatccacaa tgggcgtaga aatcactata gctttaagat 180
gaaaggggaag gagtttgtgc tacgacccat gtctccaagc caagtgatcg ccgacaagca 240
agccacccat cgtggagaga atcgtgagcg agcgaaccac caaaaagaga gtgagtgcc 300
caagcccaa ttgagtgcct ccatgatgag cgacacgaca aacttagttc tatctgccac 360
caaacgtgag atgagagaaa tgtgtgagaa cccctcaagt gtctacact atgtccttt 419

<210> 11389

<211> 451

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-016-Q1-E1-A4

<400> 11389

cctgggcgta ccggtccgag attcncgggt cgacgactcc accggcgacg aggactcgga 60
cgacagttgc acgctgaggc gatcgaacgg gagaagagcc ggctggacgc ctggccatgg 120
cgttcggcg gcgggagcca tcaggatcag gtagcagcgg aggagctcgg ctcgctcgat 180
atatactgta gaaaaagata gtttcagttc aggcgatgga attctgatgg tatttttcag 240
gtgttggaat tctgatagac agagtgaatt gtgtagatt taccatttgg ttagatgggt 300
gaggtgggtg gcacatttgg ttgatttctt catttttgag tgcaacaatg ttgcagaaat 360
gtagatactc agactctcaa tgccgtgatt atgaggataa ggaatatctt caggtccttt 420
ctgaaagttt taactgacca agtacagttc c 451

<210> 11390

<211> 418

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-016-Q1-E1-A5

<400> 11390

gtaccggtac agaattcccc ggtcgacccc ttctacatgc gtgccaagat cttgggcagc 60
gctggggacc ggcaagtcgc gagttcttac ctggaaggcg tcattctggc aaaccaagat 120
aaggacaact tctcgtgcc ttactttccc gagtaagtcc tcccctcaac cgccccgtaa 180
catatgaatt cttagatttc gatcgttttt cttttaacat tccgtgtttt ctgcagtgc 240
acacattgca cgctcatcct cctaagcccc aaatattcca tggccacgta tttcgacccg 300
gaccgtcagt cgaacgtaga ctacacaaat gtcaagaagg ttcttgatga tgttctccct 360
ggctacgtca aatctggagg caccttcnac aggctattc gtaagtacgg taagcacg 418

<210> 11391

<211> 432

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-A7

<400> 11391

gtaccggtac agaattcccc ggtcgacaac ttcatcagga tacactgttt gtctatgtca 60
acagttcgtt ttctccaagc ccagacgagc tgataattga cttgtataat aattttgcaa 120
tagacgggaa gcttgtggta aactatgctt tatcggcagc gtgggggttaa aagattggat 180
ttgcgggaag aatcgaatgg atcgaaaacg ccgtttgaaa tttgaccgtt ttactgtgta 240
tagctggagt tgtagttggt cagtcaaaga ggactagct ctacatatg ttgatgatga 300
aagtaaaggt tcttgcgaga ctgccttttc tggcattgaa ctgtccaagt gttctctctc 360
tctacagtat gtttattggt tcttgattca tgcgtgtgt gtgattgggc ctagagaaac 420
ggatggattt tt 432

<210> 11392

<211> 457

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-016-Q1-E1-B2

<400> 11392

cctgcgcgta ccgggtccgag attcncgggt cgacctaccg tccgaagagg aaggataaga 60
 gggctcaggt cagaggtgct caaggctctg tgagtagaga gaagcatgat gcatctgctg 120
 ccaatgccag cgccacctct tcgaaaccca ccacctcggc caaggctcca gaaccaccaa 180
 agggttccaa caagtcccg aagaaaaagt cgagggtctta ggcgacaaag ttgttatgtc 240
 acaaattaac agtatacaaa ggacactgtc catttttagta tcttgacttg atttttttgt 300
 gttatctgca ttggattgcc ctgcgctgtg cttttagaac catgtttatg gtgacttgag 360
 attctagact tgttgcaa at tttgttaagg ctgtctgact tatctgggta aaaaaaaaaa 420
 aaaaaaaaaa aaaaaaaaaa cggccgctct agaggat 457

<210> 11393
 <211> 437
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-016-Q1-E1-B3

<400> 11393

gggccagaat tcncgggtcg acctgaaggc cgacaagaag aagattaagg ccgctgtcaa 60
 gaaaatgtac gacattcagg ccaagaaggc taacaccctc atcaggcctg atggcaagaa 120
 gaaggcgtac gtgaagctga caccagacta cgatgctctt gatgtggcca acaagatcgg 180
 catcatataa gtcagaggga gggctcctgca gtaggcgctt gtgtcgtggg ttcttgtgtt 240
 attggaattt ttagttgtt acttagcaaa ggggctcagt ggctccattg cctaccatat 300
 cgctgcacac tttcatgaat ttgatgcaat cgaagtgact tgttggtgag ctttgcgttt 360
 ggtcttacca tatcggttgg tttctttacc atcctttgac ttaccatatt tctgtataa 420
 tttcccggtt ttanaga 437

<210> 11394
 <211> 460
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-016-Q1-E1-B4

<400> 11394

cctgcgcgta ccggtccgag attcncgggt cgacttccac caaagcggta tccatcatct 60
catcgaaaga cgggacacct ttgcctctat caagtgggtat cagatttcca ggttgctcgg 120
tgagatttta cagcttttcg tagtttagat cgagtttttt cttcatacct atagtccacg 180
aaaaagccaa aaaataaatt agggtagt gtcctatcc gaaccaatct gagcctttgc 240
ataatctttt ctgtgtttgc tttgttgaat ttgcggttgc atcgtcgtgt caagttgctg 300
gtcttagcgt ctagtctttt agagttccga gttctgttca aaggttgtca cgtcgccgct 360
gccatatatc accaccgcat catcatcatc gctgctgcca tataccacca ccgcaccaac 420
ttcatcgccg ctgccatata ccaccaccac atattcaccg 460

<210> 11395
<211> 408
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-016-Q1-E1-B7
<400> 11395

taccggtaca gaattcgagg gtcgacatgt tcatcaacgt cgggtgtcatg ttgcatgtgc 60
tccatgtcat cgtcgtcttc cttgtcgaga gcaacatctc catctagttc atcttgtgtg 120
tctggaagct cctgtgagct gttgtggctg taccgaccac ggcaaccagt tggccgatgt 180
gtccgttctg caacaaatgg cgtgaattgc ctgcgaaccg cgtcactgtc atatccatta 240
agggacgtcc aaccctcaac caacttcccc agcacgctgg tcattctgga tgcaaactgc 300
ctaattatgt gctcaacggc tgccctcgcc tgtgcacgaa ccaagattca acactctgca 360
catcgtatta aagtcacgtg cacaggatca acactgacca tacacaac 408

<210> 11396
<211> 450
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-016-Q1-E1-C3
<400> 11396

ctgcgctacg gtcgagattc ncgggtcgac tccttcaagg aagaggttga tgagggactt 60
caagcggctg atgcaggacc ctctgctggg cataagcggg gcgccgcagg acaacaacat 120

aatgctgtgg aatgctgtga tttttggccc tgacgatagc ccggtgggacg gaggtacgtt 180
 taagctgact ctccagttca atgaagaata tcctaataag ccaccaacag ttcgggtttat 240
 ttctcggatg tttcaccta acatttatgc tgatggaagc atatgcttag atattctaca 300
 gaatcagtgg agcccaatat atgatgtagc tgctatactt acatctatcc agtcgctgct 360
 gtgtgatcct aaccgaatt cgcctgctaa ctcagaagct gcncgcatgt tcagtgagaa 420
 caagcgagag tacaaacgca aagtgcggga 450

<210> 11397
 <211> 458
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-016-Q1-E1-C4

<400> 11397

cctggcggta ccggtcctat attcncgggt cgactacgtc acgggagcgc tggaacatgg 60
 agttgaaggc ttttcagccg gtcacatcgt gcgtccgagc acttggcttt ctcaagagaa 120
 cagcataaat gctgtgtaat gctgtcagtc gtgcgacagg atagaagccc atgtgaccgt 180
 ggaagctaca tcataactct ccaattcagt cacctatatc caaatcactg accatcattt 240
 cagatcatct cgccggtgaa tcacccgaag atatacaccg aaagcaccat acgctaaaac 300
 cacctatcga cacattgcgt cctaacaaat aagctagcag ctatagctat tcctatcaat 360
 tcgcagccgt ataatgccat gggacactcc ctgtctcagt caattactcg ccgcatgtgt 420
 agtgagaaca cgcaacatta cagccacaca ttccagca 458

<210> 11398
 <211> 443
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-C5

<400> 11398

taccggtaca gaattcccgg gtcgaccagg ctgagaaaat gggacttgac tacatggatg 60
 ttgaaagtct caagaagatg aacaagaaca agaagcttgt taagaagcta gccaaagaag 120

accatgcttt cttggcatca gaggccataa tcaagcagat cctcgtctc cttggccctg 180
gtcttaacaa ggcaggcaag tttcccactc tggttagtca ccaggaatct cttgaagcca 240
aggtcaacga gacaaaagct acagtcaagt tccagctaaa gaaggttctt tgcattgggtg 300
ttgctgtggg caacttgctg atggacgaga agcagatcca aaaaacatc caaatgagtg 360
ttaacttctt tgtgtccctc ctgaagaaga attggcagaa tgtgaggtgc ctgtacgtga 420
agagcaccat ggggaagcgt gta 443

<210> 11399
<211> 368
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-C8

<400> 11399

atagtgagtc gtattaaaca ccgcgtctac ctactctagt ctagatacca ctgttcggtt 60
tgactccaac cgataagaca tctctctgct aactctcgag agatctggcg cgtccagttt 120
aactactcct atattatatg cgtgtgcttc tagggctctat gcccatgttt ttcttttctt 180
tttctgattg acctatggcc acgtgtgtct gtcaatttgc actcactgat accacatgag 240
caagaccatc cgggcagaat ccatctagat atcttctgtt agactagtgc aagctgccac 300
ttctaatagg atccaacct aacctatgcg ttcaatgcta cgttcaaagc tcttcgatac 360
tgtcacct 368

<210> 11400
<211> 445
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-D6

<400> 11400

taccgttaca gaattcccgg gtcgacctga tctccgcat catcgcaagc tctcgttacc 60
tgctcatag catacagtcg ctgaatcaag gtcgagctaa ggatgcgggg caggtttctg 120
gcttggttcc gcacctagtt gatggtggta tatccatttt gcagtatgct gatgacacta 180
tcatctttat ggagcatgac ttggcgaaag ttatctttac ggccacagca ttgatccgta 240

tgtggtcgct actcacaccg acggaggcca gggggcgttt ggctactgcg tctaccgat 300
 gggagatggg agctcgggtt attttcaacc ggtttggatg gcggtcatgt aataggatac 360
 gcatatactg ctctattttt atttgccagc cggttgtggc tctatgttta ggctcgcttg 420
 agcaaccttt tttcctttcc aactt 445

<210> 11401
 <211> 450
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-016-Q1-E1-D7
 <400> 11401

taccgggtcca gaattcccgg gtcgacctgg cattacttcg actggataat gtggtcggag 60
 agttccgacc tatgatattt gcggaagtac ctaatgttac tagttttaga ggggtggtag 120
 tatatgttca tggattttac cctcatgcgg ggggaacagt tgtccgacct gggagatttc 180
 ctggccacat taatggtgtt taccaactgg gtgattttac ataccttgac ggagacttca 240
 catctgagtc tggaacgtct ggtggaccag ttaccatggg agatagagtt attggagtaa 300
 atgtgcaaag tgtgggagga tcgagatgcg cggtttcccc tctgacacta tacatgacat 360
 ttatgaattg gtgtggtttt aatggcggag accatacaat tgctgcatg atacaacgcc 420
 ttgtgccta atcagttttg caatgtcaag 450

<210> 11402
 <211> 451
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-016-Q1-E1-E1
 <400> 11402

acaggtccga aactcgcggg tcgacctacc accaacgtcg gtgacgcagg agatggtcac 60
 aaccatgatg acatcctcta gcactacaat ttcttttagtg tatggggcga ccttgatacg 120
 ttcggcgtag tagcaggcga tggcgatgtg gccggatctg tcattgttag tcgaagattg 180
 gaaacaaaac acaagaatag tgccctttc aactactaga atgtggttgc taatcaaaag 240
 caggagaatg tatctctggt tcttaccaat tcttactcaa catgtggtga ccggtaacca 300

atggtgtata ttaccaccaa agattgggta nagtgcctgg aaggtcatgc caaattgcac 360
 agtgaatccg tggagcttgg taggcataaa tatggtagta atgttagtca taatcaattc 420
 agagatggaa gttgcacaaa tggacaataa c 451

<210> 11403
 <211> 435
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-016-Q1-E1-E3
 <400> 11403

ccggtcctga tttcgcgggg cgacatcggg gagggagaag atccacagtc gatgcatccc 60
 aatcaggggt cctcgcggtg tggaccgggc gcctgcctcc gcccccttcc cgaagtttcc 120
 gcgctccacc atttcgccat ggccggcggc ggcattctca gcagggcgct gagctacgtc 180
 gtcaacgagt tcctcgctga gggcctcgcc aacaaccgtg ccttccatag gtttgctgtg 240
 aggaccaaca tgactttgga ggatctctct tctaaagcta aacatgctag ggaggagata 300
 tcggagcaat tcaaggatgc tcgtggaccc aatgatcgct tcaagcagtg atgcccgtc 360
 cgagtcactt gttcttgccc tggttcggga tgccatccac aagtggccat tgtataaaat 420
 ccgaatctaa attac 435

<210> 11404
 <211> 452
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-016-Q1-E1-E6
 <400> 11404

ggtaccggta cagaattccc gggtcgaccg acagaagggt gctcttggtt ggttgatcac 60
 caatggtgca ggtcttgcac cttaccccat tgacaccgtc cgcagaagga tgatgatgac 120
 ctccggagag gctgtcaagt acaagagctc cttggatgct ttccagcaga tcctgaagaa 180
 ggaggggtgcc aagtccctct tcaagggggc tggtgccaac atcctccgtg ccattgctgg 240
 tgctggtgtg ctctccggct acgatcagct ccagatcctc ttcttcggca agaagtacgg 300
 ctcaggcggg gcctagaggg gacgaaatga tgacgaacaa gagaagtttg ttcccagtc 360

tacccttcga ggatctggtg aacttttatac tttttaacgt tggcaggcaa taattattgt 420
agagggtgga ttttcccaac attcgttttt gg 452

<210> 11405
<211> 450
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-016-Q1-E1-E8

<400> 11405

ggtaccggtc atgaattccc gggtcgacat tcctcctgcc aagggttattg acattcctcc 60
tgcaaaggcg ctgcaaaagg ttgatcctct ggtgccatcc aagggtgctcc gaagagatgc 120
tcctccacag agtttgcttg tgttgccgaa ggaaacaata aaagttgctt cttcccacca 180
gccagacagg cagctgcagc ccgttctgca caaacccaag gtgcctgtag tctctcccct 240
catcaaacag cagcagtcga gcaccttggc gaaagaagag ccttgctcct ctggcaggaa 300
gactgaaaaa ataccagagg ttaagcagtc aaagtctgat cgtaagaaga gccgcaaggc 360
tgagaaggaa gagaagaaag agaggaaatt ccgagatcct tttgttacct ggaatccacc 420
ttccttgagg gttgangaga ccgggaatct 450

<210> 11406
<211> 336
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-016-Q1-E1-F1

<400> 11406

cctgcacgta ccggtccaga attcncgggt cgacagctct ttctttaaca ttatggcgta 60
gactatttaa ctttactcgt ctgaaattga tagagatata gtcattggagt aataaagggc 120
gaaagtgtat ttggatatta caagtagctg cttgtgacaa tagctaaatg ttgtagggtg 180
gtctgtcagt agatgagttc ttctatgtac tgtacatctg acatccgtta cttttaacct 240
tattcctgata gtagcaaaga tactcatgaa aaggacagca catgagtttc agagtaatac 300
aatataccgc tggggccttg ccagaaattt gatctc 336

<210> 11407
 <211> 448
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-016-Q1-E1-F2

 <400> 11407

```

gggccagaat tcneggggtcg acgactgcaa tctttcaggt tatacacatg tatacataaa   60
cggccgcccc ggagggcatca tattcctttc aggcaaaagt ataaaaatag cttataaaaa  120
atttataaaa gcatttcgct tacaatgaga ttacatatca ctcaaacata atattttttg  180
agcactgggt ctctatcaaa cgagcaccct caagaacttc ttcaaagtag tgctcagcag  240
cccttcgacc tatggccaaa tcttgcgctg caacattggg agcatccatc tccgcccagt  300
atgctttaac agggggcaa atgtcatccgtg cgccctctat gcacgccaac ctcttcacgc  360
cattaatgcg cgacaccacg tcaaggaact gctgcaccaa gttaaaatag ctattcgggt  420
ttgaccttc cggccatagc tgatccac                                     448
  
```

<210> 11408
 <211> 453
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-016-Q1-E1-F5

 <400> 11408

```

gtaccggtac agaattcccg ggtcgacgag atgacgaagc gcaccaagaa ggctggtatt   60
gtcggcaaat atggtaccg ttatggtgcc agtttgcgta agcagatcaa gaagatggag  120
gtgtctcagc actccaagta cttctgtgag ttctgtggga agtttgctgt gaagaggaaa  180
gcagttggaa tttggggatg caaggactgt gggaaggatga aggctggcgg tgcttacact  240
atgaacactg ccagtgcggt cactgtcagg agcactatcc gtcgtttgag ggagcagact  300
gaagcataag ttgtactag tgtttgtcc tagtgaatca tctgggattt cgcagtttag  360
acgatacttt ggattcagtt ccattggctg tttagtcaag gattatcttt gtacttggtg  420
cgatgatggt ctgttatggt attctccac cct                                     453
  
```

<210> 11409
 <211> 450
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-016-Q1-E1-F8

<400> 11409

```

ggtagcggta cagaattccc gggtagactc aagccccctt agtagcaaca atatcatcac   60
cgtagcattt gtacgttgtc agcttgataa tctcgtctt cttcatctga gacttccatg  120
tagtcattct caccctcaga tcttcagctt tcggcaccat ttcgaattga atcacacaga  180
aaaactgccc ttggggaagg ctgggtccaag tagaagagaa ctagctgacc cttccccaac  240
ttgttgtctg caacaaatth cctccatcca ctaccataca ttgcgctctt tgtgggcccc  300
ttgtgacact taacgggtga ttttcgtttg tttgccttaa acttcagtgt atcccctgtc  360
aagtcgttga aaccaactct ttcgttgaat ggcacaacct gttatgtgtt gaacacacaa  420
nanagaacaa caacatgaac aatcatcaaa                                450
  
```

<210> 11410
 <211> 287
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-016-Q1-E1-G1

<400> 11410

```

tacaggtcct agattcggg gtcgacatcg tatttgtggc aaagccaccg ttcacaattt   60
tcatacatgt cactcatgca tcattgcaca tgccggtaca ccgccggagg cattcacata  120
gagtcatatc ttgttctaag tatcgagttg taatttttga gttgtaagta aataaagtgt  180
gatgatcatc attattagag cattgtccca gtgaggaaaag gatgatggag actatgattc  240
ccccacaagt tgggatgaga ctccggacga aaaaaacaag ngcatggg                                287
  
```

<210> 11411
 <211> 451
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-016-Q1-E1-G2

<400> 11411

```
accggtccag tattcacggg tcgacgaggg tgggggcgcg cccctgcct cgtggcccc 60
cctggtgctc caccgacctc aactccaact ccatatgttc acgttcgggg agaaaaaat 120
cggagagaag gattcatccc gttttacgat acggagccgc cgccaagccc taatctctct 180
cgggaggggt gatctggagt ccgttcgggg ctctggagag ggaatccgt cgccgtcgtc 240
atcatcaacc ttcctccatc accaatttca tgatgctcac cgcggtgcgt gagtaattcc 300
atcgtaggct tgctggacgg tgatgggttg gatgagattt atcatgtaat cgagttagtt 360
ttgttagggg ttgatcccta gtatccatta tgttctgaga ttgatgttgc tatgactttg 420
ctatgcttaa tgcttgtcac tanggccga g 451
```

<210> 11412
<211> 451
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-016-Q1-E1-G3

<400> 11412

```
accggtccga gattcncggg tcgacttcca ccaaagcgaa atccaccatc tcatcgaaag 60
acgggacacc tttgctctta tcaagtggta tcagatttcc aggttgctcg gtgagatttt 120
acagtttttt tgtagtttag atcgagtctg ttcttcatac ctacagtcca cgaaaaagcc 180
acaaaaaaaa aattaggggt agttcatcat atccgaacca atctgagcct ttgcataatc 240
tttttagggg tttgctttgt tgaatttgcg gttgcatcgt cgtgtctagt tgctgggtctt 300
agagtctagt ctttttagagt ttcgagttct ggtcataagt tgtcacgcgg cccggcgcaa 360
catcatcaat caccctgcc a tetaacagca ccgctttacc gccaccgctt ccaatcggtg 420
tcaatatacc accacaactg tcatatacca c 451
```

<210> 11413
<211> 463
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-G5

<400> 11413

cgcgcgccagg taccgggtcag agaattcccc ggctcgacgct ttgtcgagaa cttctccaag 60
atcgccaagc cactgaccaa tctgctacac aaaggcggtta agtttcattg gactgaaaag 120
tgtcaggaaa gtttccaggc actcaaggac aagatgactt ctgccccagt gcttgcccc 180
tgattctcgc aaggacttcg tcatctattg cgacgcttca cgacaaggat taggctgtgt 240
cctaattgcaa gaccgcaggg tgattgctta tgctctccgt caagtgcgtc ctcatgaaga 300
gaactaccca gttcatgacc tcgagcttgc tgcgggttatc tttgcaactga agctatggcg 360
ccagtacctt ctcggtaatc gttgtgaggt cctcaccaat catcagagtc tgaagtacct 420
gtttactcag ccagatctaa acctccgtca gcagcgatgg atg 463

<210> 11414

<211> 449

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-G6

<400> 11414

gtaccgggtac agaattcccc ggctcgacatg acaagccaaa aaccttagaa tggcaggatg 60
atggaaaccc tgtagaggca cctgttggtca atcgtagggt atgcgggtgag attcaaccca 120
gactcatttc ctgcaggagg aaccagtaat tggtgaccat catgagattt tcgatagttg 180
tttagcattg gcgacagcct gacagctaag aagaccaga ttcaaaggag cttatttgat 240
gcaaagagtc ctgagtttgt ggaaaagggtg atgcgcttat cacaagagca ctagtgtaag 300
agtttaccga cagaatatga gaagactggg accgtcaaac caattgatgg gtgtatgagt 360
tttgttgga gtgttaccat gcttctgagg gtggtagcac cccatacctt gtgtggatga 420
atggattttc aaagagagcc tccaaacct 449

<210> 11415

<211> 393

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-G7

<400> 11415

accggtcaga gaattcgcgg gtcgacgacc tcaacgggac cagcaccact gcaaactcaa 60

tgatgggata tacactccct tatcaggtcc ctcaatttca cccaaattga aataaaaact 120

gcaaactttg caaattcatg ggaaaatggg gtgcaattga tggccaatgg ccttgtacag 180

accgaagatt acagcaccca aaggaaatth atcaatatgt ttctccttgc gccacaggag 240

aagggtact ttgcgcacag agaatatctc cactttggtg accgaaaaaa tgtgcactgt 300

gcacgtgtga gctcacgaga cccttttgac accatggtat catccacagt ctccacacat 360

gctgggtaca atcatcatga aaatcgtcca atg 393

<210> 11416

<211> 379

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-G8

<400> 11416

gggtcgacct tcaatgctga tgaggacatg actaccttgg atatgaccaa aaatattgca 60

tatatgcata tttgtcaggt gatttcgagt gcaaactatt caataatcta tttgtgttat 120

ccagaggagt aatacttcac acacttttgt gttttgtcta attgcagggt tatgggacat 180

ttgtacaatc cacatatgaa gataaggaag aaagagatgt ttatttgctg tccaaaaagt 240

tctctcacgt cacttttggc ccaagagaag atagagtcca agtctctcac gttctggatt 300

cagattcgga ctgcacagac atacctgact caagacgcac acaagttttt catacggact 360

ccgaattggg tgatacttt 379

<210> 11417

<211> 452

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-016-Q1-E1-H3

<400> 11417

accggtccta aattcncggg tcgacgagcc gcctgtatca gaagctccgg agctgggttg 60

gctgggtgctt aggtcacatg tggtgggttct tctgagtggg aggaacttca tgaaggagaa 120

ggtgaaaaca agtggtagct ttgtgctcag aagatttggt gcgtttgact ttgcaaagcc 180
 tggttccggg aaaggatga aaatcgagga cctagatttc accgaggaag aaatggagat 240
 gtatgtggat ctccatccaa tcacaaacac ttcgccgtac acggtggtcg aaacaatgtc 300
 gcttgcaaag gctgcagtcc tgttcagggc actagggcta agacacctgc tggttgtgcc 360
 aaagacccca gggagatttc ctattgttgg gattctcacg aggcacgatc tgatgccgga 420
 gcataccat gggctgttcn ccaatctccg ca 452

<210> 11418

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-H5

<400> 11418

taccggtaca gaattcccgg gtcgacgggt ccttcagacc aactgacggc acggctggag 60
 cggggatgat cctacgtgac cacctggggg ctgtaatgct ggcagcgata agagggcttg 120
 ggaattgtgc ggacgccttg gaagccgagt tggcagcaat ccatgaagga attactctgt 180
 ctcttaattg gactgaacta gatatccttg tggagactga cagcgctgat gcggtgcaac 240
 taatttcggc agccggaaaa gaccgttcaa cacacactca caaagtaatg gagatcagat 300
 caatactgtc tcaagaaaaa aggattcaaa ttatgaaaat caagcggaat gttaatgtac 360
 ctagtcaaac tctcgctcat atgggacgta cacaacaaca tactgcttgc tggttgcgtt 420
 ctcccccgga cgagattgag agcattgttg tc 452

<210> 11419

<211> 368

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-H6

<400> 11419

taccggtaga gaattcccgg gtcgacggga gcgggaaagc agatgatcga ggtggtgctc 60
 agcgaccgcc tgtggaacaa aggtgctcgt caagtggagc gacgacaaca ccagcagcga 120
 catcacgaag ctctgtggcg cgcacaccgg gaccacggcc gacatgatcc gcatacagaa 180

atggtacacc atctataaag accacatcac cctcagcgac taccagatca caaagggaag 240
 gggccccaac tcaactacaa caagcgatcat aacccccgca attgcaggtc cgtcaccaat 300
 cgtgcctgtg atgagcggtg gttgcattcc agtcccaatg tcatcacagc tcgatgtgtg 360
 ggctgaac 368

<210> 11420
 <211> 453
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-H7

<400> 11420

gtaccggtcc agaattcccg ggtcgacttc ctccgccatt ggcggcgatg tatgcggtca 60
 tcgacggatg tgtgaacacc atgtgtcgca cgtccatcct ctctttcttc tcctatcgac 120
 atctactccc gcggggcata ccgcttgac tcccggcgaa tctacaatgt catcgacaac 180
 gtccaagcca agcccaaaca tgcacagtac ttcaacaacc acatcgacgc cgctcaaggc 240
 cgacgaggca agacggctag acgggcgtag ctggagcaaa ggccacgttt tcgacggcgc 300
 gtgtaccact ccgtacacgg actctgccgc cgccacacac acacaccacc accatgcatg 360
 aggaacgcga agcaaagacc gaagatgacg actacgcagc ttaatcgat gtgtcccgcg 420
 gtgctatctg cgggagtaat taaccggggg ctt 453

<210> 11421
 <211> 445
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-016-Q1-E1-H8

<400> 11421

taccgtaca gaattcgcg gtcgactgtg ggcagtcac tcaagatctt gatagtgaat 60
 ttcatgttac tttggaacta acagagctgg gcatatccat aattgaccat atgcctgagg 120
 aagttcttta cctctcagtc cagcaattat tacttgcta ctcatctgga atgggttctg 180
 gaatcaatag gtttaaagt cgaatgcact ggattcaagt ggacaatcaa ttgccttttg 240
 tttcaatgcc tgtcctcttt tgtctcaga agacggacaa tcaatcagac catgtgtca 300

agttctctat gacgatgcag accaataatt ctctagattt ttgtgtttat ccatatattg 360
 gtgtgcaggt tcttgagaat tgtgtgtttt ttgttaacat ccatgaaccg attatttggc 420
 gcctccacga gatggttcaa cacct 445

<210> 11422

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-A9

<400> 11422

ggtccagaat tcccgggtcg actgacaacc atagataaga gcaaaaatac tgaagacagc 60
 atagatttta gcatacagtg cgattagcac ttgacctctt tcagcccatg tgcaaagtac 120
 aggaaagttg gatcagcagc tccctccttg tagtaggcga acaccacgcc gccatcatca 180
 tgcattgctct cgccaacaaa gaactgaagg tccttgagct tgctaagaag atactttgtg 240
 gcggactcaa cattcttctt gaaagcatct aggtcatccc cttcaagctt ggagagagg 300
 ttcttgatgt agcgcttcat gtgagagata aactgcttct tgtcaaaagc aggttgctcc 360
 tgaagacgga aggtgtcaac aatgtcaacc accttcacgg cctggtcac aacaccctca 420
 tcattcaccac caccctcagc ag 442

<210> 11423

<211> 355

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B12

<400> 11423

gcgatgccct atatggagtc gtactattcc taagaatggg gcagatatct gagccccgtg 60
 tcactcatgg attactcctt cccgtaggaa atggtaatgt tgtagaggga taaatgggaa 120
 gagacgatta taaatccagg aagtttagaa tctaattcta actgttggt cctgagaaat 180
 gactccattg acgtggcagt ctttttctt aaataagatg ggttatatga agaaacggta 240
 ccaaaggagg agaaaactgt attctaagga ggaaaaaatt aataggaatc tttctgagct 300
 tctgggataa agcttacagg gtttgaagat tagtacattt gtatgtgggg agaaa 355

<210> 11424
 <211> 397
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-B9

<400> 11424

```
ccgggccaga agacgacaga agggggatat gaagatggtg ctactggcgc gaaaaaagag 60
ggaagctgct ctagaagcag ctttggcaga gaaggagctt cttgaagagg agtacaagaa 120
gaagtttggg gaggcacaga aaaaagagct ttctctagaa aatgatctac caggcatgtg 180
ggttcttggt gctaagttga agagaggggc ttccagcata tctgatttaa acgttgatga 240
tcggtctatc aatctagctg agataactaa tgatgcagag gaaaacaaag gtgacacaaa 300
tgtagcctta gttgagaaac aagtgtcaga tgatactgtg aagccattga ctgcagaaga 360
atatagaagt ccagaatttg aacctcttcc tgttcgt 397
```

<210> 11425
 <211> 440
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-C9

<400> 11425

```
taccggtcca gaattcccgg gtcgactctg ctgggaagtg gtctctgaga ggaaaagcat 60
tgttaacaag gctgttggtc cggccaagag attctcggca ttaggaattt gcaagtgggt 120
gctctccgta atcttttgga gaagaagctc tactaccagg tatacgtttg gcttgatcaac 180
tacgttcctt ggctcctgc tgctcctcga cagatccacc acgttgagtc catggcggcg 240
tctgcatagg ccacagcaat gaccacagcc tccgccatcc catagccaaa cacatgtaaa 300
tgcagaactt cagacgattg gttaccactc tgttttgcgc gtgcattgca ttctttgatg 360
atctgtttct tttcgttttg gctgagtaca gcgcagtatt ggcgatgtaa gttttggctt 420
tcaagctttg agcttgctgt 440
```

<210> 11426
 <211> 413

<212> DNA
 <213> *Triticum aestivum*
 <223> Clone ID: LIB31-018-Q1-E1-D12
 <400> 11426
 cacagggtcca ggactcgcgg gtcgacgagg ttggccagtc tcatcacgga tcatcagact 60
 actgagatcc ccatactcct gtaccaatcg gtcgttttcc ctggccagac gctgcagctg 120
 cagacgggttg agttcagata ccgcatcatg atgcagacac tcctactcca ggaaggtcac 180
 agcttttgga tcatctactc cagcaggaaa gatagtagga tggccgatgt tggatgcatg 240
 gtccatatcg ttcagtgcga taagctcgtc gatgaccgct tcttcctgac gtgcgtcggc 300
 ggtgaccggg tccgtgtcct ggaggtcgtc agaacaaagc cctatgtcat cgcaagagtc 360
 cagggtactga aagacagaga ctcacctgat tcaagtaacc tgggggtgcct gat 413

<210> 11427
 <211> 65
 <212> DNA
 <213> *Triticum aestivum*
 <223> Clone ID: LIB31-018-Q1-E1-E10
 <400> 11427
 tagtgagtcg tattaacaa tacgacggct acatagcgta agtgttctat agctgagtgg 60
 ttgtg 65

<210> 11428
 <211> 313
 <212> DNA
 <213> *Triticum aestivum*
 <223> Clone ID: LIB31-018-Q1-E1-F12
 <400> 11428
 atagtgagtc gtattagacg gcgtgaaaaa gatgtacgac atccacgcca tgaagggttaa 60
 gaccctgatc aggctgatg gcaataacaa ggactacgtc aagctgacag gagacgagga 120
 tgctcctgac gtggccaaca agatcggcat catataagtc agatggacgg tcctgcaata 180
 ggcgcttggtg tcgtggttcc ttatgttatt ggagttttgt agctgttact tagcagaggg 240
 gctcagtggc tccattgcct accatctcac cgcgcacttt catgaatttg ctgcaatoga 300

agtgacttgt gtt

313

<210> 11429

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-G10

<400> 11429

gggccagaat tcccgggtcg actccaatga acatgtgctc ctctttaatt ctcaccatca 60
aactatcctt cccagacttc ctacaggtat ccatgtacca ttcattgcaat ctttgcatca 120
tcgttgtagt aggaggatga tcaagtttga cgagaggctt cccgtactcg tatctaaaga 180
tctctacctc taacatttca aactgtacaa gattgctcag gtaatcacca agattggtag 240
cgggcaatag ccccggttga ttagcgacga taccctagac accttgagcg ggggacacaa 300
ttgcttcacc tgttcacga gctggggaat tgttttccca tttcttcggt ctgctaattc 360
tgcatcaatg gaagtacttc ccatcgctt cgcattctca tatgtctttt taatatagcg 420
ctcatagttg gaattcg 437

<210> 11430

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-G11

<400> 11430

cgcgtgggtc gacacaacac cctatagtga gtcgtattag atttaaagag gtctagatat 60
gatgactctt ataactactc gaggagggat tacgaagagc gctattctag agatgagcac 120
agagacagga ggcacgttg aacgcagaag ttatcttaa atgcatctca tttctatgaa 180
gcgaagtgcc acgctggtag atcttattga gcaaggacag taacattggc gccattgaag 240
aaggctcagt cacctagcgc aagatttcgg ccatatgttt actgctagtt gtccagcaac 300
gctgttttgc cgctgcggtg aagttttgtt tgctcatgtt tgtatggact ttctcctctc 360
ttttgtcagt cttgagtatg taatgtggag gttatattgt tacaccggtg gcatcatggt 420
gcccagcagg 430

<210> 11431
 <211> 421
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-018-Q1-E1-H12

<400> 11431

```

ccccgggtcga cccgacatga taaaatggat ctctgcagaa tgcgctccga tgaaggctcg   60
ccaagggagg atggtgtgat ttggatctga atcctcgtct ttttaatagg cagctcattc  120
acacagctag gggggtaa at gtaaaaacac cctggctctt cacattcgct cgacacgtgg  180
taagtgttca ttactgggcg tggaaaccaa tgagtgaac attcacaaga ggccggacac  240
tatttcgaca ggtacacgga atttgagaa ggacccgccc tgcaatgccg aagacaatac  300
ttcgcgctgg actcatcgtc attgaagcct ggttcggggg ctactgagga agtcctggat  360
taaggggtct ccggacaacc ggattatatt cttcggccgg actgttagac tatgaagata  420
c                                                                 421
  
```

<210> 11432
 <211> 463
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-A6

<400> 11432

```

taccgatctt agaattcgcg ggtcgaccag atcaaggacg cccttgagac agcctgcccc   60
ggtactgtct cctgcgccga taccctcgcc ctgcgcgccg gtgactctac tgccttgtt  120
ggtggccctt actgggacgt gccactcggc cgcagggact ctctgggtgc aagcatccag  180
ggatcaaaca atgacatccc tgcccccaac aacaccctac ccaccatcat caccaagtcc  240
aatcgctctg gtctcaacat cgtcgatgtc gtcgcctctt caggtggcca caccatcggc  300
ttgtcccgct gcaccagctt ccggcagagg ctgtacaacc agtcggacaa cggcctggcc  360
gacagcacac tggatatgtc ctacgctgcg caactaaggc aagggtgccc ccgctccggt  420
ggcgacaaca atctcttccc actcgacgtc gtcagctcga cca                     463
  
```

<210> 11433
<211> 357
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-019-Q1-E1-A8

<400> 11433

taccggacta gcattcgcg gtcgacctca aggccgacaa gaagaaaata aaggctgctg 60
tcaagaaaat gtatgacatt caggccaaga aggttaacac cctcatcagg cctgatggca 120
agaagaaggc gtacgtgaag ctgacaccag actacgatgc tcttgacgtg gccacaaga 180
tcggcatcat ataagccaga gggagggtcc tgcagtaggc gcttgtgtcg tggtttctta 240
tgttattgga attttgtagt tgttactaag caaagggcct tagtggctcc attgcctacc 300
atatcgctgc acactttcat gaatttgatg cantcgaagt gacttgtgtt tatgcta 357

<210> 11434
<211> 360
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-A9

<400> 11434

taccggtccg acgattcccg ggtcgacaag atcagtcaaa ccgacgacta tgcgagggat 60
cacaagatct tcgactgacc ccatcaccgt ctagatacct cggttcaagg tcatccggcg 120
cacacttcat aggcaacgca attacgtgag gatcgactgc aacatgttca cacccatggt 180
gctgcacgga ttccacaagc acaaccattg gttttgtcgc agcttgccac ccatttttac 240
catgctgtgt atgaaacttg gtgatcagtc tctcatggag tgtatgtatg ggctgccctt 300
ttacaaaata tcatatgcat gtttggttga tgactacctg ggggatocaa gcttaacttg 360

<210> 11435
<211> 449
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-B10

<400> 11435

gggtcgaccg cagcgcagaa gcaaaagccc caatcccctc cgcctccgcc gccgttcttc 60
 tccgtccgcc tgcgctccag ccgtgccctt ctcgctcgcca cttaccgacc tcgagctccc 120
 cagccaccga caaccggagg cggcgccatg tctcagaaca acccctccca gtcctctccc 180
 tcagagctga tcgaccggtg catcggatcc aagatttggg tgatcatgaa gggagacaag 240
 gagctcgtcg gcactctctg cgggttcgac gtctacgtca acatggctct cgaggacgtc 300
 accgagtatg agtataccgc cgagggccgg cgcattacga aacttgatca gatcctcctc 360
 aatggcaaca acatagccat cttagtctct ggtgggtcac cgccagatgc tgcgatgagct 420
 agcaagcact tctggaggat atctgtttg 449

<210> 11436
 <211> 435
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-019-Q1-E1-B5
 <400> 11436

ttcgccggcc gacgtcacac tggaggtcca agcatgggtc catggcgata acagcggacc 60
 agcagtcaag atgtggaccg cttgctggct ttgcacggat acgacgtccg ctggcgactg 120
 gtagaaggta gaacgcggtt tgggtgctaga caccgatgac gccttgtgaa atctggtagg 180
 ggaagccgca ctctttttac gcggtgcatc ctttcatgca ttcataatca catcacatcc 240
 tgattatcta tgagaaactt ccctatgaga acatgatata ttgaatgatg aatgtcatac 300
 tgccagacag atgggggtgt atgaacgaac cacggaacga catancggca tgccatcact 360
 agcgcagact ccattaatac tgactatgcc gatcacacat taatacgtcg gtcatagacg 420
 tcatagctct tctaa 435

<210> 11437
 <211> 259
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-019-Q1-E1-B6
 <400> 11437

caccctataa tgagtcgtat tagcatttct gtacgtgctt cactcataga aatgtgcaac 60

tactttattt gagaaactta tagttgggtt gcaatgtacg tattttctag cttgagttta 120
cctcagttgt agtttttttt aaatacatga tacttgact tttatagaca tgtgtaacta 180
ccatttttag tacaggtgca actgggttgc gacgtatgta gtttcaagct tgagtatccg 240
tcggttgccg cttttgata 259

<210> 11438
<211> 451
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-019-Q1-E1-B7
<400> 11438

ttcgcgggtc gacgatgatg catactgcat ctctgggtcc taccctttgg aaagaatgtc 60
tagctcctcg gatgtctgga caaactctct ctagagaaac agagtttgat gcatccatga 120
ggtcagtatc atgggacaac tcatggcaac ctggccgtgc tgtaagattg cctgatccaa 180
gcaaaatccc tgaattatgc gctcaggatg acatgaagta tgcctttgag ccgcttttca 240
ttctggcaga gcctggggct gttgattaca atgatacaat ggaatcttca agatttgag 300
ttgatgcaag tagcagcagg gcttacagct caatttcagg tggcactgat agtgagcaa 360
gcccgctact tgaagggctc gagaatgaca gtgctccgag tcatcattgc tgttatggct 420
ggaccgaaga ctggcgatgg ttagtgtgca t 451

<210> 11439
<211> 464
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-019-Q1-E1-B8
<400> 11439

ggtaccggac tagaattcgc gggtcgaccg aatttgacat gggaggagtc cgttaagaga 60
gacctgaagg attggagtat cgacaaaggg ctagctatgg acaggggtgc gtggaagctt 120
cctatccatg tgccagagcc atgagttggt tgcgagatct tatgggtttc acctctagcc 180
taccccaact tgtttgggac taaaggcttt gttgttggtt ttgttttttc tgggaggact 240
gtactaacat attgaaattt tcacagtgtg ggcgttcgga ggctgaggaa ttaacgagag 300

agcccttatt ctgatactga acatacattg gtctccaaac cccagtagaa gacaaatact 360
cagcatatca gacagggcat actcttacct ttacacactc gaatattgtc accctgtgcc 420
tctgtacggc ttgtgcatct actgtaatgg cctcataag tatg 464

<210> 11440
<211> 457
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-019-Q1-E1-C5
<400> 11440

taccgatcta gcattcgcg gccgacggag aagaaaaagt tgaacacgat gcgggagatc 60
aaggtgcaga agctcgctct caacatctcc gtcggcgaga gcggcgatcg cctcactcga 120
gctgccaaagg tggtggagca gctgagcggg cagtcgccag ttttctccaa ggcgaggtac 180
actgtcaggt ctttcggcat tcgtcgtaat gagaagattg cctgctatgt gacgatcagg 240
ggtgagaagg caatgcagct tctcgagagt gggctgaagg tgaaggagta cgagctcttg 300
aggaggaact tcagtgcac tggttgcttt gggtttggtta ttcaggagca cattgatctt 360
ggcatgaagt atgaccatc aaccggcatc tatggtatgg acttcttcgt ggttctggag 420
cgagctggat accgcgtctc ccgccggcgc cgatgca 457

<210> 11441
<211> 464
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-019-Q1-E1-C8
<400> 11441

aggtagcgat ctagaattcg cgggtcgacc tccgtcacia catccattct ctgttctaca 60
ggagaaatta catcagccag tactattgca ccccttcat catgtcgctc gccgctctca 120
cctggaacta caggagctgg taattgcgta ggcgggggtg tggtctccgc acatgcttgt 180
tgatgtgtgg tagttattgg tgtgctctcg gccggctcca gacgaataag attcttcggc 240
catagcagca cccaaccctt gcagcttcca atccgcgacg gggctctcgt gtcgctccc 300
acatgctgta ctggaggagg caaatcctcg tgccccgatt tcacactggg caagctaacc 360

ctgaagtacc cagcggggat cggctggttg tggaacgtgc gttgagaggg gtccattatc 420
atcccccttc ccacgtccac cttctggccc ttgatcaagt agag 464

<210> 11442
<211> 442
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-019-Q1-E1-C9

<400> 11442

gggtcgacct tgagcactca tgttcattgct cacggaagca atgtagaatt tttcatggaa 60
gtttctctgt aaataattat ccccttatat atatccattg tattataaaa ataatgtgcc 120
aagctttggt tttaggatga ttagattgct tgcttactat gtgcagaaca aaaacagaaa 180
ctttggctgt agcgcgtgat tttacatttt ttcctggaaa gtcaaattggg tctgaaactt 240
tctgcacatt acttctgtat aaatttttca aattgtcaaa tttatttcat aatgtttgga 300
gttacagaag ttactaaac ctccagatta ctacagactg tcctgtttta gacagattct 360
attttctatg tgttgtttgc ttattttgat gaatctatgg gtagtatcgg ggggtttgaa 420
ccatggtgaa gttggnatac ag 442

<210> 11443
<211> 436
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-019-Q1-E1-D10

<400> 11443

gggtcgacaa ctatgtcatc agccagggt accaccatga tcccacttca atcaaggaca 60
atcatgtgcc atgggatcca ggtggtttta catggcatcg gcttgaggtc aagccgaatt 120
ttaaggaaag gggaatgtta gcgaccaacc tactcttgct tgggctgggc catgggctgc 180
gggttttggg ctgcagtgag gcctcgagga aactactaca agtacacacg aaggctctaa 240
gaagaactcg gctaggaact ggatggcttc ggctcctcc gcattctgtc tttctcttcc 300
tctcgtgttc ctcttcttcc tgtgttggtta aagcttgagg aatccatggc tgtaatctcc 360

attgatgagg aatagagagt gtgttgctaa cattattact anggaaaatg aagcaacggt 420
gttaaaggat gggctg 436

<210> 11444
<211> 455
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-019-Q1-E1-D8

<400> 11444

taccgaacta gaattcgcg gtcgaccgac agaaggggga gtcatacttc cagtcaatcc 60
ctggtctcca gatggttgct tgctccactc cttacaatgc caagggttta atgaaggctg 120
ccataaggag cgagaaccct gtcgtgctat ttgagcacgt ccttctgtac aacctgaagg 180
agaaaattcc ggatgaggag tacactctat gcctggagga ggctgagatg gtacggcctg 240
gtgagcatgt gaccatcctc acatactcgc gtatgaggta ccatgtgatg cangctgcaa 300
agacgctggt gaacaaaggg tacgatcctg aggtgattga cattangtcg ttgaagccat 360
tcgatctgca cacaatangc aactccatca agaagacca ccgctgctg attgtggagg 420
agtgcatgcn cactggcggg attggcgcca atctg 455

<210> 11445
<211> 450
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-E12

<400> 11445

gggtcgacac gacagaatgg ctcgattggt agtaaccccc gtgccgaaca tttcacatca 60
taaagttgtg gagcctcgct cccattttca tcacatacca caagcacggg gtaccaacgg 120
tgtgtccggt gccctgtgaa aacagtcatg gccgccctac ctggcacgac cccgtcccaa 180
gagagagcac caactctccc ccgtcactag taatgcgggc tccaagctag tatcgggtcta 240
ggtactcaat aatgcccttt cccatataag ggtagagtgg tcgcgcatgt aaggttgga 300
taacggtcgc aactccgacc aatccgtttt gaaaacaaca cacacctgcc ttggcacacc 360

acttcgtcat caagtgggtca cccatctcat catctccctc gggcataggt ggcacccgac 420
 ggggttttcg aaaagacttt tgaaatcaca 450

<210> 11446
 <211> 429
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-019-Q1-E1-E3
 <400> 11446

gggtcgacga acctactcaa aatgaagatg ttgagctggc tgccataaag ccagaggcgg 60
 tggagcatgc tggtagacagag gccgatccaa gtaaagaagc atctatacct cctcaagagg 120
 aaaccactgc tgtagccttg gttacaggac cggaacaaaa tgaagaagca gatgcaccta 180
 ctcaagtcga accagttgct atagtgccag attccatgga gcatgctagt accgaagttg 240
 atcaaagtat agaaacatct gtgcgtctcc cagaaaaaac ttctgttata cctggtagcg 300
 aaccagaaga gaagaaagta gaggcacctc cccaagagga taatgttgaa gcagttgctg 360
 cagagccaga acctgctgga tcccaggaaa atgcagaagt ttctaccaag cctagtccta 420
 tggagatag 429

<210> 11447
 <211> 472
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-019-Q1-E1-E8
 <400> 11447

cgccaggtagc cggactagca ttcgcggtgc gaccaatggt atgagggtg gaggcatact 60
 gtatcccatg acgcggtcgc cgggggtgac ggcggtgtgg aagtagtcgg gccagcgagc 120
 caggtagctc atgtagaagg acatgttgaa ctgcggcgag cgaatcgacg tatcagaccg 180
 ggaagaggac ggccggacgg cgctcgtggag aaacagtagc aacaaaggga gcgagagatg 240
 gatcttttgg ggatggctta cggctctcggg gaggtggtcg aggttgaccg aggcgaagcg 300
 gagcagatcg tcgcagcaga accggcgaaat ggtcgtcatg gtctccctcc cgtcctcggc 360
 ttccggcggc ggcggaatct cgtggcggag cggggcgggg gcggcgctct atccggattt 420

ccgattcggtt tgtgcgggtc gggttggaac caggaagagg cttcctgcga tg 472

<210> 11448
<211> 421
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-F10

<400> 11448

gggtcgactt ctcgtggtta ccgatgcgcg gaactgcatg gaaggtttga agagatcaca 60
ttccaagctg ccgatgaaga ggaatctggt ttgcatgact cagggggcag ctctgatgat 120
ggaggcggtc aaaaagagca acatgtcaaa gacaaggaac ccatacgctt gaatgggttc 180
ccaaagatgg gtagaagagg tctttctgat cggctttgct tcagttcttt ccaggagcgg 240
tcgtgcccaa ccgagaatta tgaaagcgat catcagtcaa aggggttcga cataaagcat 300
gaagtgaaga tggccaagta caaagcacgg aaaatggcac acctgaagag agctattcat 360
ccatctctgg acttcgacaa caacaccaat ggagcaagta gaacgaagcc tacactgagc 420
a 421

<210> 11449
<211> 443
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-F2

<400> 11449

gggtcgacca cactggtaa tctgatccac aagcttgag gtattgacaa gcgtgtgatc 60
gagagggtcg agaaggaagc cgccgagatg aacaagaggt ctttcaagta cgctgggtg 120
cttgacaagc tgaaggccga gcgtgagaag ggtatcacca ttgatattgc cctgtggaag 180
ttcgagacca ccaagtacta ctgcaccgtc attgatgctc ctggtcaccg tgacttcac 240
aagaacatga ttactggtac ctcccaggct gactgtgctg tgctcatcat tgactccacc 300
actggtggtt ttgaggctgg tatctccaag gatggccaga cccgtgagca tgccctcctt 360
gctttcactc ttggagtga gcatgatc tgctgctgta acaagatgga cgccaccact 420
cccaagtact caaaggcccg tta 443

<210> 11450
 <211> 444
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-019-Q1-E1-F5

 <400> 11450

 attcgcgggc cgacacttca cttgaacctc aggcctcaggg gcggcacgat gatcaaggtc 60
 aagactctca ctgggaagga gatcgaaatc gacattgagc ccaccgacac gattgacagg 120
 atcaaggagc gcgttgagga gaaagaaggc attcctcctg tgcagcaaag gctgatttac 180
 gctggtaagc agcttgacaga tgacaagact gccaaaggact acaacatcga aggtggctcg 240
 gtcctccatc ttgtccttgc tctgaggggt ggttactagt taagctgtaa tggaaacact 300
 tgccctctga gagaagtgc cattgggtggc atggaacctg tgttggtggt gcaaagagat 360
 aataacaaac tagctttgct tagtgggagg ggctgtcttc catgttatct gcctatatga 420
 tttgacaaaa ctagtcgcaa ctcc 444

<210> 11451
 <211> 438
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-019-Q1-E1-F7

 <400> 11451

 cgctactccc tatagtgagt cgtattatct tttgagattt taaattacat taatttttat 60
 gcgtggagaa tttgttgat cttatattga tatacatcta tttttaaaat ctgtttgaat 120
 gtgagtcgaa atttcaggat taaaaacagt tcaaacttgg taatattatc tttgtgaaag 180
 tgtgacaaat gtgctgatcg tgtgcgtcct gagaataata attctaattt ttgtgcatgt 240
 tgatcccgtg gcactgatag aacgagcgaa tgcattgctt gttttaagta taaatttcta 300
 ttaaagctaa ttaaatttaa gtaaagtgc cactaactcc tgttattaca gtaccaatac 360
 agaccgctc gtgaaccgat gtgtggccga gggatgcatt tctagcctcc tctagcctcc 420
 acgggatact gttcatct 438

<210> 11452

<211> 443
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB31-019-Q1-E1-G10

 <400> 11452

 ggggtcgactt ccatcaaagc gatattcatc atctcatcga aagacgggac acctttgcct 60
 ctatcaagtg gtatcagatt tccaggttgc tcggtgagat ttacagttt ttcgtagttt 120
 agatcgagtc tgttcttcat acctacagtc cacgaaaaag ccacaaaaaa aattagggtt 180
 agttcatcat atccgaacca atctgagcct ttgcataatc tttttagggt ttttgctttg 240
 ttgaatttgc ggttgcacgc tcgtgtcaag ttgctggtct tagagtctag tcttttagag 300
 tttcgagttc tggtcataag ttgtcacgcc gccgccgcac catcatcatc gccttgccat 360
 ctaccaccat tgcttatccg ccaccgcttt gaatccgtat ccatatacca ccaccgctgc 420
 catataccac cgccatatat cca 443

<210> 11453
 <211> 455
 <212> DNA
 <213> *Triticum aestivum*

 <223> unsure at all n locations
 <223> Clone ID: LIB31-019-Q1-E1-G2

 <400> 11453

 cccgggtcga cgctgaacca aaccgcgggc gccatggcca gggcggacgt gtggaagaaa 60
 gacaaggccc acaggaacag gcacccggac tatgagttct tcctgtcccg acagcaacgg 120
 tagacgaccc caagcttttt gcacacacca tgtttcagaa cactgacggg ggccacttcc 180
 cctgtaacca gaaccatccg gactgagcgg cgccgtccgc ctgtgttacc cctgtatata 240
 tttgagatag aggtacatgt ggaggtgctg ctcaattgaa agtgaaacca gaccagaaaa 300
 tgtttagctc actgcttact tactagttgg ggttgatata atangtgcaa ccccttttta 360
 aatctaatta gcttgctcac ccatgtggtg tgtgtacata tatgcctgta actcaactcg 420
 gcactgtatc tatctaactc tgtanctgca taata 455

<210> 11454
 <211> 456

<212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-019-Q1-E1-G7

 <400> 11454

 taccggacta gaattcgagg gtcgacaagc cgggcaaaat gtgttgctac ttctacaata 60
 tcaaagatga tgagattctg gtcttgctcg tcgaggaccc aatcacaggg ctttctgtcg 120
 ctgccgcaat gcattaggaa aagttcaagt ttcctattag atttagttct attggaaaag 180
 ggctgccctc accgcgctta tccccatcgc cggagggccg acgtgcaggg gttggggccac 240
 agccgacact tccgttcgtg ccctaccact gtcgaatctt ctcgcctaac ccccttcctc 300
 cccgatctgc tactgatgta cccaactac cactggagct tcggggagca ctctctgtc 360
 caagttgagc attgggcgcc gtccgagtag agcactgcac cccgtccaag tcnccatcta 420
 atgttgaacg ttcaattttg tcatgttgaa taatat 456

<210> 11455
 <211> 448
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-019-Q1-E1-H1

 <400> 11455

 gggctcgacac gggtcacaat gtaaatgcat acaaggatac cttccgtggg catgtgtgtg 60
 attgccctat tgtcaaaggt gtaaaattcg tgagggatgg atataccaac tgtgaaacct 120
 catgtgttgg taggtgtgag atcaacagtg gaagatgcgg gaaagaaact acgcatggga 180
 ggacactatc tgctgcacg cattaacaat ctgcatgttg caaacgtcca catggttcca 240
 cgggcgatgg tgtgaaaagc tgtgaagata ctgacgaatg caaagcgaaa tcagcctgtc 300
 agtgcagtgg ctgcagttgc gatactacat gtggaatcta taaatgcagc tgtggtggta 360
 acaacatgtt atacatgaga cagcaggaca cgtgcatcat cattcacact gcctcctcag 420
 tcggctggag cctcatgtgg gttatttt 448

<210> 11456
 <211> 390
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-H5

<400> 11456

```
ctcgcgggtc gacgctacac cctatagtga gtcgtaatac agcattacag ctctgaatat   60
ggattggtgg catgtggctg cggcagcctc atttaccggg caggcgtcct gtctgaagac  120
tgcgccggtc cgggtgggtga ctacagacctg ggatgtgtcc tggatgggac ctacaggtttt  180
aggagtcaag tttggttgca aggtctgtgt ggtatgatgc tcagatatta tcaattggat  240
aacagttacg acagatgtca gccaacactg tgacatgaga catactgttg tattactttg  300
tactgtcgtg tgttcacagt taatcaactg gcagcatgca tcgtccagcc ggcggtcgtc  360
ttcctttcga aggctgttta gtcaaggatt                                     390
```

<210> 11457

<211> 465

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-019-Q1-E1-H7

<400> 11457

```
taccggacta gaattcgcgg gtcgaccgtt tcctgaactc caaagatttc catcgcccaa   60
atatgataaa gggttcagtc aaattgccaa taagggtcac gagatgggct tgaaattcgg  120
catccattta atggaaggaa taagtacaca ggctgttaat gcgaacacac ccatcttgga  180
tattgagacg ggaaaaccct atgtagagaa tggtcggcaa tgggcagctc gtgacattgg  240
cctgacccat aaaacatgtg catggatgcc acatggattt atgagtgtaa atacggatat  300
tggagctgga cgggccttct taagatctct ttaccgacag tatgcggatt ggggtgttga  360
ttttgtgaag gttgattgta tcttcggtac tgattatagc ccggaagaag taataactgt  420
ttcacagctc ctgcgagagc ttgaccgccc aatagtacta tccat                                     465
```

<210> 11458

<211> 440

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A1

<400> 11458

tacgggtccgg aattcccggg tcgacaaaa ggcaatcggt tagataagca tgaatatgct 60
gagctaataa agagggggtc taccgcagag gatttgggag ccggccatgc tgaagcagca 120
caagtgcaag gattaggttt atacaaggct cctcacaacg aggaagaacc aagctctctt 180
agtcctgacc ctcttggaac ggagcctgag cagattgact ttgcacctgc aacgaagcag 240
gaagattctg aagatgatag gaaggggaaa aggcggcgcg aagagaggag aggggacaga 300
gaaaaagagc ggaggcgtga aaagcactat gagggaaaag agaggaagcg agacaagtat 360
gagagtagac acgactcgga ggacaggag aagcgccacc gcaaggataa gcagaagagg 420
aggcatgatt ctgattaacg 440

<210> 11459

<211> 323

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A10

<400> 11459

tagccgtccg aaattcttgg gtcgacatat cgtaccctat ggtgagttca gctatagtcc 60
atgattggga acatcaattt cagccagtt ctgaggaggg caaatatagc tgattcgatg 120
tttccgatct aggtcatatt acactcgtat tagaggacag taactatgac gtgtgtcatg 180
tctcagtgcg tatgcacgat gggcatgtgg atctcactgt ctatgggaca tatttgtgct 240
gatactcgtg agtatcagtt cacagatcat ggttaaataa tttccgaaac acttgctgtg 300
aaactgggtt caatttcccg ccg 323

<210> 11460

<211> 468

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A2

<400> 11460

cgctgcctg taccgggtcc tagattcccg agtcgactgc gtccacgcaa aacattgttc 60
ccttccccca gctgcgggac caagccggtt atgtgaccag ctgtgtggcc accgtcgttc 120

tatgcttgtg aagagagcaa cccaagtaaa caggcttgta acttaggctc ttgctaattgt 180
 atatatagtg gttttctttt tctctccata tcaatcattt tatattgcgt acgtgtcatt 240
 gaagagtga atgatgggtg cttctcccg aacttact gtgtgatttg actgctcctt 300
 tagtggcccc tacacgtact cccctacgt gtatgcaaca gtcacacgta cacatagacg 360
 aaaaaaacg cacgcgacgc cctaattgat gcatgtccga gcacactagg aacacacacg 420
 gtcacgtca agtgctcaac ctacacgtgc atgcacacac atactcat 468

<210> 11461
 <211> 468
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A3

<400> 11461

gtaccggtcc gaaattcccg agtcgacaaa tcaagggaag aaaagtctgg aggactttgc 60
 aaccttcctg gaggtgaaaa tgaggactcc attggccatc agaagtggct gagctaggac 120
 aaactgaaga tcacgaatgc agaacaagtg aaccatgact cccctactc cttgcaagat 180
 ggttgcagga agtgtggtgg tcagcccggc ctcggtgctg gaccccaagt gatctccgca 240
 gccttcaaca gctatgccga tgaagttcag gagggatttc tgtgagctcg acatgtttgg 300
 cccctgaagc tatccagctc ccccttagcc ccagttttgt taaggatgaa aaagatctat 360
 aataaactat aattccctta gtttctctc ctcttagttg ctgcttgata gctctatgag 420
 catctagttg gaaaaattgc agtttatttt tgcaccttta ccttcatt 468

<210> 11462
 <211> 456
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A4

<400> 11462

cgctgcctg taccggtcct aaattcccg gtcgacatgt acgatgatct gctgaacgtg 60
 gtcaccgacg acgacgagga tgccgagttt gatgacatgg aggattatat cgacgacgcg 120
 gactgggacg ccgacatgta tgatgatgtg ctcgatgtct gaaggagctg tgactaggac 180

cgggtcgggt tctcacgtgg aaggaaggac gggaacttgg tgctgaaaca atgtggctct 240
 tacctgtgtt tagattcttg aagctggggt ctcttacgtt tgttaactag tctgctactc 300
 tcttgctgtg aaactggggt cgctttctct ccgcgactgt aattttatgc cgcacctgtg 360
 atttggtcat gcaataaaac cctgtaaatt aagtatcaaa aaaaaaacg ggagaaaaaa 420
 aaaaaagcg gccgctctag aggattcaag cttacg 456

<210> 11463
 <211> 458
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-A6

<400> 11463

ggtcctaaat tcccgggtcg accctgtacg gggtcatgga gcagaaagtg agcagcaacc 60
 cgagggagggc cttcgtcaac taccgcgacc tggacatcgg gcagaacgtg gttggcgaca 120
 acggcggtgcc gacgtacgag agcggggagga tttgggggga gaagtacttc atgggggaact 180
 tccaccggct ggcgacggtg aagggccagg tggatcccga cgactacttc aggaacgagc 240
 agagcatccc accgttccta cccgtctagg ctgcaacgag tgagtgaact tctcgaaaga 300
 aaaaaaatga agtggtaacg agtgaaggct gaagagtga gagtgcggtat tgacgtgtac 360
 gccagccaac atgcatgcat ggggtgtcaca ttgtgtttgt cttgaataag gaataaagat 420
 tgggactgat tacatgtcag tggatgaagt agattttg 458

<210> 11464
 <211> 393
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-B10

<400> 11464

ttcacgggtc gacgaacgtg aacctggggg ggggtggacac ctcagacgtc atcgcggaat 60
 gcctcttacc accgtgcgca actcatcact cgtgcaatgc cgagagagcc atatcgtgac 120
 tgggtgtagtt cctcaagggtg ttccatgtgc tccaatgagc aatttgcgac agttagttca 180
 ccgatgccat gcacgccata cggcgcagct aggattccat cgtgatggct gaagacagat 240

gtgacacccc aagctgacct ccggcattgc ttccatcctg gactcagcac tgtctatcgc 300
 caactctcgc ttctatctca agttctacga ttcataccgc tcagactttg gatgtgatgg 360
 atccaccttt tatacgcatac atatggcatg gag 393

<210> 11465
 <211> 456
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-020-Q1-E1-B4
 <400> 11465

cgctgcctg taccggtccg aaattcccgg gtcgactact tcacaaccga acatccgcat 60
 gacaacaggc cgcgctcttt ctcggtgtac actccgagca gaactgcggt cgtgtatgcc 120
 cttacagagt aagaaccagc agctgcttgt tacaaggcaa agagagaact ccagagagct 180
 cgtggatcgt gagcgaagcg acgggcaacg gcgcgaggct gctctaagcg ccatgactgg 240
 gaggggatcg tgcctcttcc ccagatgccca ggaggagcag atggataggt agcttggttg 300
 tgagcgctcg aaagaaaatg gacgggcctg ggtgtttgtc gtgctgcaact accctcctca 360
 tatcttgac atttccggtt gtttttgtac atataactaa taattgcccg tgcgctcaac 420
 atgaacatat aaatattcta ataataggtt atccct 456

<210> 11466
 <211> 460
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-020-Q1-E1-B7
 <400> 11466

ggctctaaat tcccgggtcg actggaaggc gacctcttct aagggtgtcc ttgggtaagg 60
 tacttagatc aggtccatga ccctacccta ggtacgtgac cccatcacct ctcacaaaag 120
 gaaaaaaaca aaaaaacgca tttttttcgt ttctgagagg caccgacctg actctcgcga 180
 aaaggaaaaa acagaaaacc cattttttcc gtttccgaga ggcacgaccg tgactctcgc 240
 gaaacaaaaa ccgtgcctct tgcagaagta aaaccgtgac tctcgcgaaa agaaaaaaat 300
 aaaacgcatt tttcacgcac ttttttacca accatcaaaa aaatcgaaaa aaaaccgttt 360

aaaaagtcaa aaacgcgtgt gaaaaaataa aataaaaaaca aaatctggag ggagcgtcca 420
gagcgtgaca cgtggcgaat agctaagagc gcgccaagtg 460

<210> 11467
<211> 476
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-C1

<400> 11467

cgccggcctg taccgggtccg aaattcccgg atcgacggga actttgggag ccggagacac 60
tggtcgaaca tataaagttt gatcatggtt atacctcgaa gagtccagca attgtcaatc 120
tacttgagat catgacagaa ttactccgg agcaacaaca tgcattctgc cagtttgtga 180
ctggtgctcc tcggcttcca cctggtggct tagcctccct aaatcctaag ctgactatcg 240
ttaggaagca ctccctgact gcggcgaata cttcaaatgc agctggagca gcagagtctg 300
cagatgatga tctgcctagt gtcagtactt gtgccaacta tcttaaactt ccgccatact 360
cgacaaagga ggttatgcac aagaagctgc tttatgctat caacgaaggc caggggtcgt 420
ttgatctttc atagtgggtt caaaactaac atacagatgg ttggtgcaca atgtaa 476

<210> 11468
<211> 384
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-C11

<400> 11468

tagccgtccg aaattctcgg gtccacagcc ctccctggcac tgtcagtga tggcgacctc 60
caacggatcc actacaagtg gctggcgaac gacgcggcaa tgtccacgtc tcagaacaac 120
gagctggagt cgggtccggt gcacgtgtac agcttctcgg gggtgttcct catctgcggc 180
gtggcggtgcc tcgtcgcgct cggcatacac accgggatcc tctttcacia gtactgcgag 240
caacggcggc agatgtccgc cgacggcagc tcccgtctta gccgcagcag tttccgagcg 300
ttcctgtcgg ttgccgaccg aacggagatt gggaccaca tatcctgcat cgacaaggca 360
cgaggagatc actccattag cgcg 384

<210> 11469
 <211> 476
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB31-020-Q1-E1-C2

 <400> 11469

 cgctgccat gtacgggccg aaattcccg gtcgactagc ttcttcgagt agactagctt 60
 attgagttga gcggtggagc gactagtcct cgactagtcc agactagtct aggtttttga 120
 gtcgatcgac tcaatttggg agggaagaat tttttttagg gaaatttggg aaagactagc 180
 aaaaaggccc gtgcgttgca acgggagaaa ataaatgaca cccaatcca atatgcatag 240
 cgatgggaat gtgtgtcgag gaataacatg aaggagaatt gtgatttcag ctagccaacc 300
 ttgcaaaac ggcttagaaa tgaatgcatt cttcaatttg tggattaagt taaagatata 360
 agcatctcct ataagattta aaaaaaatc aagcataaga ataaaaatac atatagaaca 420
 ttaaaaaata aaatcaaaac tgaaacataa tttcttctgc caaaggaaga tgacat 476

<210> 11470
 <211> 473
 <212> DNA
 <213> *Triticum aestivum*

 <223> Clone ID: LIB31-020-Q1-E1-C3

 <400> 11470

 cgctggctg taccgggccg agattcccg gtccactggg ggccggagtgt acctgggtac 60
 aaacggctct aggggtggaca acaccatcgt agaggcgagt gggcgtgtcg gtgttggtca 120
 caaacgtctg ccgatgcctc tgtggtggcc gaagggcgta caacagcggc ggcagaggtg 180
 aaggctgcag atgaaaagta tgggaaaaaa gggctaagtg gaaggaaatg ggaccgtgag 240
 gggggattgg gtgggccggg gtgtcgaagt cttacgtgtc tgctgtccga actcccgcaa 300
 agtccccctc actttgtctt caatttgcgg gagatagtgc gtaccgcccg acgaagcgat 360
 ataggcccg gttggataac ttccgcggcc tttacagtgc ggccaggacg gcttgaaggt 420
 cggcgtagga gatttcgttc gaacttactc cctccgtccc ataataaag tgg 473

<210> 11471

<211> 477
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-C4

<400> 11471

cgccctggcat gtaccgggtcc gaaaattccc gagtcgacag cgggtggttag atctgggtgat 60
agctccccta ataagctoga atctttccct gatctggagg atctccgtcg ccttgttcca 120
tttggttcgtc gctgtcgtgg agatggggac agaaagtgga agagggtggag cgcaagtttg 180
tttcgattgg gtttgtgcat attctcatcg gtgcttggag tggagctacg gcgcccactg 240
gagctgccgg tctccgacgc ctccccgggtg acctttctgg ccgaagggcg gcctgggtgaa 300
gccgcttcgt ttcttcctcc tggcttgatg ccatttgaga ggcagctggt caacttcaac 360
atggagtcct cttcttccat ctttgtccgg agatggagta gtggcgggtcc tgtgatccca 420
agtggtcacg tccccgggtga tggccggact ggatctacgc tgggagtgag tattgga 477

<210> 11472
<211> 469
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-C6

<400> 11472

cgccctgcagg aaccggtcct aaactcccgg gtcgacctcc tcctcctcct ccatggggac 60
ggggggccgcg ccggcgtaga ggctcttcat ggctccttg tcctcatcgt tgccggattc 120
ggccatggcg tcatagccgc cggccgccgg gaagccggcc atggcggtg gagaggagag 180
gaggtgggag gaggccgtgg tggaggggat ctggatcggg gcctcggtgg attttttttg 240
agataaacgg gggtggggtg acaatggagt gggacattga tggcatggga gtatactagt 300
agcgcggctg cctctcctgc gctacagcta tccacatagt agtagcggcg gtttcccgcg 360
ctactactat ggtctgttcg cgggtcatgg ttggagatat ttactagtag aatgtttttt 420
gtaccacacg ctaccagtaa atattactag tagcgggtgt caacatagc 469

<210> 11473
<211> 452
<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-C7

<400> 11473

```
ggtcctaaat tcccgggtcg acggtggtgt gatgccatcg tcgtcatgaa gttatcctcg   60
gtggtgtgat gccgtcccca agatgagtcg ctgtgacgcc gccggcaaga catacatgac  120
caggtgcgtt gccggtgcaa gtggagatcc atgccgcggt gacaggcgct gtgacggcgt  180
catccacagc gagatgccct gtgtggtcct ggtgctgcga aggcaaagtt catggcaaga  240
ggtttgcagg tgatctgcat caagattaga ggagttgaca tgacaagatt agggaggtga  300
atgttaggat taatcttgtc tagccgagct gagagagtca gttagtttgt tagctgctgtg  360
agggtcgtgt gcctagagtg attctaggag gaagaagtgg tcaagataag attagatggg  420
tgcattgtgaa gtggcgtgag tgggtcagtt tg                                     452
```

<210> 11474

<211> 472

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-020-Q1-E1-C8

<400> 11474

```
cgcttgcagg aaccggtcct aaattcccgg gtcgacaatg aaggaagggt atgggcaccg   60
ccaaaatecc tcaggacggt ctggcagcac cgcattcatc tcacaagtgg cagtcgggtg  120
tagatctgtc tgactacacc atcatgcact gcctcttgct tcgccgccct tgetgtattg  180
taggaccata gtgcaccacc cgcggtcccg agcggagaac cacctaacgg atatggagat  240
ggttgccgcc ggtgaacctc agatcacggg atcgtagctc cgacataacc tgatctttga  300
caagtatgtc gtcggagtca caacacgcac cagggaggta ctccagggca aactactac  360
acgtgtgcac catatcgagt cncctccctc ttccagcgca cgggaatccc atcgtgtgag  420
cgcgggggac gaccttccgc tccgtctcgt cggcacgcga gcatcccgt ga          472
```

<210> 11475

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-C9

<400> 11475

gccgtccgaa attctcgggt cgactccacc aaatcgatag ttatcatctc atcgaaagat 60
cgggacaccc tcgcctctat caagaggtat cagttttcag gttgctcggg gagaatttcc 120
agtttcccct agattagatt tattttctta cctattgtcc aagaaaaagc cacaaaaaag 180
ttagatctat tcatcctttt gtccaagcca gtctgagcct ttgcaatttt ctattcattg 240
tttgattat tgaattatcg gttgcatcgt cgtgtcgagt tgctgggtctt aggggtctagt 300
tcgttttagag tttcgagttc tgttcacatt agtcacgtcg ccgctgcacg gttatccctt 360
ctgctgtcca ccacaccatc catcaaattc caccatgtgc taccatagtg tcattggcac 420
aatcataggt gaggtcgttc acatcttcgc ctgattcaat ctgcatctta t 471

<210> 11476

<211> 464

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-D1

<400> 11476

cgctgcatg taccggtccg aaattcccgg atcgactcca gtgagatgcc tcatccactc 60
ttggccggca tgaatgcagc tcggggccaaa atgaatgcat gacaaccgat tcgtgcagga 120
gagggcgagg gcccgtaga agttttcggg ttgctcttgg gtgtccaatg cttatgtggg 180
agtgggtctag acgcccgaag gccccttga tttgcgttcg gtttatggaa aaacggacaa 240
ccggaccgct cgggtccacga ttgcggacga ttaagggtt caggttgaag atgccctaag 300
catcgatcta ttagttgtac tcatgaacct ttgttcaaaa catacatatg agaaggactt 360
gcaaagaaaa aacataaaac ggtcaattgg acaatgaaca tcgcttttta aggccttcta 420
caacgctggc cacttgacca gccgcttatg gagagaaatt caat 464

<210> 11477

<211> 470

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-020-Q1-E1-D3

<400> 11477

cgcttgcattg taccgggtccg aanattccgg atcgaccccc tcgatggcac caccaatttc 60
gttcatggct ttccttttgt gtgcgtctcg attggcctca ccattgggaa gattcccacc 120
gttgagttg tgtacaaccc catcatgaat gagcttttca cagctgttcg tggaaaaggt 180
gctttttctca atggtttctcc aattaaaaca tcgcctcaaa atgagttggg gaaggctctt 240
atggtgacag aggtagggac caaaagagac aagtccactt tggatgatac aaccaacaga 300
attaataagt tactattcaa gattagatct atacgtatgt gtggctcttt ggctctaaac 360
atgtgtggag ttgcttgtgg taggctagat ttgtgttatg agatcggttt tgggtggcccc 420
tgggatgtgg ctgctggagc tttgattcta aaggaagctg ggggttttgt 470

<210> 11478

<211> 471

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-D4

<400> 11478

cgccggcctg taccgggtccg tagattcccg agtcgacttc caccaaagcg aaatccacca 60
tctcatcgaa agacgggaca cctttgcctc tatcaagtgg taccagattt ccaggttgct 120
cgggtgagatt ttacagtttt tcgtagttta gatcgagtct gttcttcata cctattgtcc 180
acgaaaaagc caaaaaaaaa ttaggggttag ttcattcccat ccgaaccaat ctgagccttg 240
cataatcttt tctgtatttg cttcgttgaa tttgcggttg catcgctgtg ttcagttgct 300
ggctcttagcg tctagtcttt tagagtttcg agttctgttc acaagttgtc acgccatcgc 360
cgcaccatca tcatcgcccc tgccatctac caccaccaat ccgagttcct tgcttattag 420
gtttgttttc gggattaatc tagattccga ttcgtatttc cttgccggag t 471

<210> 11479

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-D6

<400> 11479

ggtcctgaat tccccgggtcg acggacttgg cgcaataacc attgcaccgc aatctctttg 60

atgtttatat ccgaaaacaa cgatatTTaa gccttgcatt agtcccaata taaattatTT 120

gacaaaagaa aacaaaaatt taaaaacaaa gcataaagtt taaaaaagtt cattgatttt 180

gaaaggaaaag ttcacaattg ttttgTTaaa tgTTactaaa aacaaaacaa tcatcattcc 240

tagaaaaata tgaaaaaaa tcatggattt ggaaaaagtt catcgatgTT gataaaaaaa 300

tttacgaatt tgaaaaaggt tccccggatt ttaaagaaaa accacaaatt tgaaaaaggt 360

tcaccgattt tgatacaaaa gttcataaat tTTaaatagt ttgtagagtt gaaaaaatgg 420

ttcacggatt ttcaacaaag attatgaatt c 451

<210> 11480

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-D8

<400> 11480

ggTcctaaat tccccgggtcg acaggatggc tTaaactgtga tccccgTtct atgtTTaagc 60

cagagcatta cTTTTtgTgg gattTgggtgc cacaatggTt tccatggaaa gaagTTTTcc 120

TTTTaccgt gcagtggcat gctTTtagccc ttggtTTgtt Tgcatcgata atagcaccat 180

ttggaggatt tttcgcaagt ggctTcaaga gggctTTTaa aataaaggat tttggcgaca 240

gtatacctgg acatggTgga attactgacc gaatggattg tcaaatggTc atggcagtct 300

ttgcatacat atatcaccaa tctTTtatct cTccccacaa tTTctctgTT gacacaatct 360

tggatcagat tgtaagaaac ctaacctatg aggagcagaa atccttatac cagcaactag 420

gagagatctt ccgtgaaagg cagTTtatgc aaagct 456

<210> 11481

<211> 456

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-E1

<400> 11481

cgctgcatg taccgggtccg taaattccccg gatcgacaat agcggggacga tcgttgggat 60
 caaatgcaaa gatggaattg tccttggtgt ggagaagctg ataacctcaa agatgatact 120
 tgccgggtcg aaccggagac ttcatctgtg gcaccggaac tctggcttgg ctgtggctgg 180
 attagcagca gacggtaggc agatagtctc aagagcaaag tcagaagcag ccaattatga 240
 aaaggatatac ggagaaccca tgcctgtaaa ggaattagct gatcgcggtg ctagctatgt 300
 tcatctgtgt acactctact ggtggctcag gccttttggc tgtggagtta ttcttgagg 360
 ctatgatagg gatggggcac agctctacat gatcgaaact tcaggcctct cctataaata 420
 ttttggtgct gctctgggta aaggaagaca agctgc 456

<210> 11482
 <211> 462
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-020-Q1-E1-E3
 <400> 11482

cgctgcatg taccgggtccg agattccccg atcgacttgc tatgatttat attcctgaag 60
 acgggtcaaga gtcccatatc ttccattgaa tcggtagaag aatctctggc caaatgcaag 120
 tttaaagggt cagccggcgt cgaggtagcc caaagatctt ggaaccgagc agggaggaca 180
 gtgcctaggc gcagccatat ggatgcagcc cttgggcaag caatgaacaa atgctgtgtg 240
 cctctgaag tggcattaca tcgtgggcaa gctgtggcgg ttgcaatgtg cttatcaaag 300
 aggttgtccc tgggtgttag ccgacctcta aacaagagcc aagcaaagat cttcagcttg 360
 tttggacagc ggctgcgcca aataagatcc gcatggtcac actcatcttc ctcatgcata 420
 ataataccct tggagctttt gaggaatttt ttgccatgta tg 462

<210> 11483
 <211> 446
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-020-Q1-E1-E6
 <400> 11483

ggtcctaaat tcccgggtcg actactcatt gatattcact tatatctttt ggagtagttt 60

gttgttttgc ctagtgcttc acttatacct tttagagcat ggtggtagtt ttatttttaa 120
gaaatagatg aactcccatg tttcacatag attattttga gagtcattaa tagcatggta 180
attcgcttaa tgttaatatata cttggtattc aaggatatgtg aaactttctt ttgagtgcgt 240
tgaatactaa gataagtttg atgcttgata attgttttga gatatggagg tgataatatt 300
agagtcatgc tagttgagta gttgtgaatt taaagaatac ttgtgttgaa gtttgtgatt 360
cncgtagcat gcacgtatgg tgaaccgtta tgtgatgaag tcggagcatg atttatttat 420
tgattgtctt ccttatgagt ggtgggt 446

<210> 11484
<211> 461
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-020-Q1-E1-E8
<400> 11484

cgctgcagg atacggctct aaattcccg gtcgaccagg gttgcccagc ccgatccaac 60
gcctcgctcg acggcgctgc cggccggcga tggatatgga gaggagctcg ggtcttcctt 120
gtgtatatta gggcagcagt agtttttaggt tgtcttggtt tcatgccgtg gtctggcggt 180
atgccgtggg gatgcaaacc actggagctc tcgagcggcg tctggtggtg gcctccgtcg 240
ttttctttct tgccaccatg gtggtggaaa gtggaagacg ccgatcttg caagatcccc 300
ttggataagc tcgttctggt gttgtggtgt tcctgatct ggagggcatc caactgctac 360
tgcttgtttt ctgaggctac catggtggtg gatgagaagc aagatagttg cagaatctg 420
aagtttatag gtcgagttcg agcatatcag cagacgtccc t 461

<210> 11485
<211> 474
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-020-Q1-E1-F1
<400> 11485

cgctgcatg tacgggtccga aattcccgga tcgacaaatg gcacacgtaa tacaaaaaaa 60

tgatagcatg atataattca catacatgat gattggctaa acagcatgac attgcataat 120
 tcacatatat aatgcctttg caacaagata gcaactgtata attcacatat ataatgtctt 180
 gcaacaagat ggcaatgcat aattcacata tatggtaatt agacactaaa catgtggcat 240
 tcacacaaag catgtctaaa ctaatcaaat ggcatagcaa tgcgagacac catacgcgcg 300
 atatgagcaa cataaccctg ccaagttaga gcatacacct aggggggggaa tangactagt 360
 catctgtctc tgaatcctcc tctgaggagc tatctgtaac cagcgagata tgcgcttcgt 420
 cagatagcat agtctgctca gaagaccttt tttcactcca gaatttgcca tcac 474

<210> 11486
 <211> 476
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-020-Q1-E1-F2
 <400> 11486

cgctgcctg taccggcccg aaattcccga gtcgactccg aggagctcac tgtggaggag 60
 cgcaacctcc tctctgttgc atacaggaat gtgattggag cccgccgtgc ctcatggcgc 120
 atcatctcct ccattgagca gaaggaggag agccgtggca atgaggaccg ggtcacgctc 180
 atcaaggaat accgtggcaa gatcgaaact gagctcagca agatctgtga tggcatcctc 240
 aagctgctcg aaaccacact tgtcccgtcc tccactgccc ctgagtccaa ggtcttctat 300
 ctttaagatga agggtgacta ctacaggtat cttgcggaat tcaagagtgg gcctgagagg 360
 aaggatgctg ctgagaatac catgggtggca tacaaggctg ctcaggatat tgctttggct 420
 gagctggctc caactcatcc gattaggctt gggctggcac taaacttctc ggtggt 476

<210> 11487
 <211> 479
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-020-Q1-E1-F3
 <400> 11487

cgctgcatg taccgggtccg agattcccgg gtcgacaaat ggcatacgta atgaaaaaaaa 60
 acatggcatg agataattca catatatgat aactggatga aaaacatggc attgcataat 120

ttacatatct gatatagata gcaaatagga ggcattcaca caaagcatgt ctaatctaag 180
cagatggcat gtcaatgcaa gacaccatat gcatgatatg agcaaaataa cctggccaag 240
ttagatcatg caccttgggg ggatatgact ggtcatctgt ctctgaatcc tcccctgagg 300
agctatcttt aaccaacaag aaatctgcat cgacagggtgc actgactgct cagaagacct 360
tgttttcact ccagattttc ccatgatcga ctcaaattggc tgatgcaaag gaagagtaga 420
tgaatgtata aacattgttg acaaattggaa tacattatta aaaaaaatg gcacgatac 479

<210> 11488
<211> 386
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-F4

<400> 11488

cgctgcctg taccggctct aaattcccga gtcgacctg aagacgacac actggcttgt 60
acaagagtgc taacatgcct tgatgttcgg tcaaattcatc aaggggatca tgtaatatca 120
aatggtggcc agtctgatgt cagagatcat actggttaaca accaggtaat gaaaccttgg 180
aaaccagtg gaattaacaa gtcaattact acatagatgg ggctgatgag gtcagcttct 240
tgaatataac tggtttccgt gcctttccat tgggtgatat gccaatgcta catgtgctac 300
gttacgcac tcagaaagtt tttgtgccac ttacagttgg tggccgtaac atacacttca 360
catatcacac tggccgatac cattca 386

<210> 11489
<211> 459
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-F5

<400> 11489

ggtcctaaat tcccgggtcg acgtcgctta cgtcactctc cagtcgtgcc atggggttga 60
cgtagaagta gaatatgtga atcatagcta gaaatcaact acaaactggc aaaagaagtg 120
gaatatttag caaaaagcaa tgctaattag ttatttcaga tgtgcgattg ttgctgaaca 180
ttaagacaaa agaagtagaa taactaacca atcattaaag ttaaagtgga atatttagca 240

aagtagtgaa cccgttgcg ccaatgacgc atagacccgc taaatccaag tccgaactaa 300
aaagaaaacc catgatttag ttagtttaat tatgggcaag cacatatagt aacaaactga 360
acactcttta taataataat aataaagaac gcttgcttgt tctgtacaat acgatgtaca 420
cacacattta aatttggcaa cacaaagttt caatgaaaa 459

<210> 11490
<211> 456
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-020-Q1-E1-F6

<400> 11490

ggtcctaaat tcccgggtcg acaaatggaa tacgtaatga aaaaaaagat ggcatgagat 60
aattcacata tatgatgcct ggctacatgg cggatgcataa ttacatata tgataactag 120
ctgaaaaaca tggcattgca taattcacat atctgatata gaaagcaaac aggaggcatt 180
cacacaaagc atgtctaate taagcagatg gcatggcaat gcaagacaca atatgcatga 240
tatgagcaat ataaccctgc caagtttagag catgcacctc gggggggggg gggtagcact 300
ggatcatctgt ctctgaatcc tctctgggg agctatttgt aaccagtaag aaatctgcat 360
cgacaggtag caccgactgc tcagaagacc ttgttttcac tccagatttt cccatgactg 420
acttaatggc tgatgcacag gaagagtana tgaatg 456

<210> 11491
<211> 469
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-F7

<400> 11491

gcctgcagat acggtcctaa attcccgggt cgaccgccat tgtaaccgag tcgctgcaag 60
tcatgtgccg gctcatggct gctccgggag agactggcgc ccagctgcgc agacaaattt 120
caagcagcaa ggaagtaatc cacggcatgg aggaaattct caagtgttgc ggatgcgggtg 180
aacaagttcg catattaacc attgagattc tcacgcagct acccgtgggc ttgggtgagg 240
agtttccgtg tgggaacaag gaaagcagag aaaattttat caagatgctt ccttctatct 300

tcaactgatga ggccaaagag caccatca gaaaattggc tggatgaagca ctgctgaagc 360
 taagtcaaag cgaaaccaat gctgccatca tcttgaaggc aaatgatcat cttgtccgtg 420
 atctccgtaa aatcctacta gatgctgcgg ccaagggcac aaatcgaat 469

<210> 11492
 <211> 449
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G12

<400> 11492

gtcgacgacc actactacat tggaagtgcc tactactacg tgcaggctga cgacgacgac 60
 caggagtagt taggaggatc ccaggcagga ggctgcgcc tctttcgatc tgtatcccag 120
 tttgtgctag ccactctatg gcaacttggt taacttatgt ctgtactcag atattgttgc 180
 ttctgctgac tctgtctatga tcgagcactt gtattcgagc cctcgaggcc cctggcttgt 240
 attatgatgc ttgtatgact tattttatct gtagagttgt gttgtgatat cttcccgtga 300
 gtccctgatc ttgatcgtag acatttgctg gcatgattag tgtacgattg aatcgggggc 360
 gtcacaaatt tggtgcttga taattgtttt gagatataaa ggtaataatg ttaggggtcat 420
 gccagtgggt aattatgaaa ttgagaaat 449

<210> 11493
 <211> 461
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G2

<400> 11493

cgccggcctg taccgggtccg aaattcccga gtcgactctt ttgtcctccg cgttatatta 60
 cttgtgtgca cgttttcccc tggttccgtt tctgttgaga gggagtatgc caagtaaaaa 120
 attgtcacat tatatttctt cttctatttt agctatgaag taatgaacac atgtgtgttg 180
 tgccatgcct acaagaaaat agtttcagtt aatttctccc gtttgttcct gtgcctttat 240
 ggccagcagg ctaaactctt ttgactgata agctcttcac tgctaggtag agagtttata 300
 gttaactgaa atcggatagc aaagaacgca ggttcagttt tgacttatgc tatggtttgc 360

tgcagtgtgg tatccgagcc agcgtcaggt gcgccaagct cgccgtccac acgcctcctc 420
 ttcattctgca tccgcagtgc caaatccctc cccatccgag c 461

<210> 11494
 <211> 473
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G3

<400> 11494

cgctgcatg taccgggtccg agattcccgg atccacataa ctaaaactcc aggcggttaa 60
 accaaaatca cacagagcaa gggagtacct tgctctgata ccaattgaaa gtgtgttata 120
 tcgactagag ggggggtgaat aggcgatttt catgaattct tctaagga atttgctggt 180
 gaggaattc ctacgtgaag aactactctc aacggaataa gtactcaca gtaaacataa 240
 cagaacataa gcatagtcatt catgatgaaa tgaagacaag cacagagtac agaaaacata 300
 aacacaggat aacacaagaa agaagatgga caggttgaag aaattgaact ggggaaattg 360
 agaaagtctt cagtcaaagt cttcaaacgg atatgaacag gcacacaaca acagacatga 420
 ggaaatgaaa gagttgagga aatagaacta gtaagctcgg tgaagacaat gat 473

<210> 11495
 <211> 445
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G8

<400> 11495

ggctctaaac tcccgggtcg acgtaccgc gcgacaaccg cagcttctac atcggcagcc 60
 gcatgaagca ggagccaacg tccccctccc cgcgcaataa tgaggatggt gctttgattt 120
 ctctatgacc ggtggtcatt ttgttttggt tgatcacaca tttgtaaggc taaacttggt 180
 acctcatatg ttgcgcatga ttttgaacgt gatgaactag tatgatgatg aactagtgat 240
 gtatatataa atttcatgta ttcattatgca agcacttggt aatatatgtc ctatgaatat 300
 atattttttt gcgaaattgc gagcccctgg cacggaacag atttcgtaaa cccgtcccgc 360
 aagacgcgtt tataccagat ctgctagaga tgctctgcct ccaaaccgga caagtaggaa 420

tttttgtgat taaggattga atggc

445

<210> 11496
<211> 418
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-G9

<400> 11496

taatgactgg gggctcagga gatgacgcag aaacagccgt cgagcgaggc gatcagcaga 60
ggctgcagct cccacaactc gcgtttctgt tttggcggcg tgcgctcgcg tgtggatgga 120
gctcgtacgc caggaagaac tggcgtctcg atggagctcg tatgccagga agaactggcg 180
ttcgttcgac ctcgtcctcg ttcgtgggtt gcggagctgt ttttttattg actgggggct 240
caggagatga cgcagaaaca gccatcgagc gaggcgatca gcagaggctg cagctccac 300
agctcgcgtt tctgttttgg cggcgtgcgc tcgctgttgg atggagctcg tacgccagga 360
agaactggcg tctcgatgga actcgtacgc caggaaaggc tggcgtttgt ttggacct 418

<210> 11497
<211> 449
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-H1

<400> 11497

cgctgcctg taccggtccg tagattcccg agtccaccag ggttgcccgg cccgatccaa 60
cgctcgtcc gacggcgctg ccggccggcg atggatatgg agaggagctc gggctctcct 120
tgtgtatatt agggcagcag tagttttagt ttgtcttggc ttcattgccgt ggtctggcgt 180
tatgccgtgg ggatgcaaac cactggagct ctcgagcggc gtctggtggt ggcctccgctc 240
gttttctttc ttgccaccat ggtggtggaa agtggaagac gccggatctg gcaagatccc 300
cttgaataag ctcgttctgg tgttgtggtg ttccctgata tggagggcat ccaactgcta 360
ctgcttggtt tctcaagcta ccatggtggt ggatgagaag cgggatagtt gcagaatcct 420
gaagtttata ggtcgagttc gagcatatc 449

<210> 11498
 <211> 465
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-H3

<400> 11498

```
gtaccggtcc gtaaattccc ggtccacca ggtggagatc acatttatgg tgtctttgac   60
caccagttac ctgcagcact gaaaaagctt cctttcgata aacatctttc attgcaaaat  120
gttcgaaaag tcattttctga ggctgatggg taccagcccc atttgattgc tcctgagcaa  180
ggttacagaa ggcttataga tagttcactc agctacttta ggggccagc tgaagcttca  240
gttgatgcgg tccatttggt attgaaggag ctagtccgga gatcgattgc agcaacagag  300
gaattaaagc gtttcccaac gcttcaatca gatatagctg cagcagcaaa tgaaagccta  360
gaaagattcc gtgaggatgg acgaaagaca gttattcgtc tagttgacat ggaggccagt  420
tacctaacag tagaattctt caagaaactt cctactgagc cagac                    465
```

<210> 11499
 <211> 452
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-020-Q1-E1-H6

<400> 11499

```
cggtcctgaa ttcccgggtc cacaatgcgt gtgtatgacc actgacgagg tcaactaata   60
tacaactcgg tgggtggctga ccgaagagag aagagacca gcggacatcg catacttgag  120
ttttctgcct acaacatggc ccaaagtcga gaatgcccc aaagactttc tatgtcgttt  180
tttagcaaga caccttttta cttcgcataa gtcattacta cgtgtatatg tagtgaatca  240
cttcacatt ttgaattttt ttataagatc aacctgcccg ccgttattac tcaaaagggtg  300
tgtggaggta ctcttacaac gcagatcata agatacaaca tgggccgaga ataagcctaa  360
cacctcgttg aggccaacc gacgatgggt gaacttact acaacacacc aatgatggcg  420
acggtgga aaacattgccg cacggtagct ct                                452
```

<210> 11500
 <211> 471

<212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-020-Q1-E1-H7

 <400> 11500

 cgctgcagg atacggtcct aaattcccgg gtcgaccatc tatcaacaag acctgcgtcg 60
 attccacgcc agaaatgtga gaggtcgagc atttcaagag ggagacttgg ttcttcgagt 120
 ggatcagcag aaaccacaca agcttgctcc tgcttgggaa ggccccttca tcatcaccag 180
 agtgtccac aacggagcat accacctttt acaacgtcga gcacaagaaa gatgagccac 240
 gcgcttggaa tgcggagctg ctccgcccct tttacactta agttttcagg ctgttgagat 300
 gtaataagaa ataccttcta gtttgattat taaagacaca gttttttgtt gcaatctcat 360
 aaatgattgt tgttcctttt ttagtctcta aatccccag tgggtggctt agccgcgaaa 420
 ccgtttcgcc taagttcgaa aaatcctacc gagtggtgag caggcctctc a 471

<210> 11501
 <211> 462
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-020-Q1-E1-H8

 <400> 11501

 ctgcagatac ggtccagaat tcccgggtcg actccgagga actcactgtg gaggagcgca 60
 acctgctctc tgttgcatac aagaatgtga ttggagcccc cctgcctca tggcgcatca 120
 tctctccat tgagcagaag gaggagagcc gtggcaacga ggaccgggtc acgctcatca 180
 aggagtaccg tggcaagatc gagactgagc ttagcaagat ctgtgatggc atcctcaagc 240
 tgctcgaaac ccaccttgtc ccgtcttcca ctgcccctga gtccaaggtc ttctatctta 300
 agatgaaggg tgactactac agatatcttg ccgaattcaa gagtgggcct gagaggaagg 360
 atgctgctga gaataccatg gtggcataca aggctgctca ggatattgct ttggctgagc 420
 tggctccaac tcatccgatt aggcttgggc tggcactgaa ct 462

<210> 11502
 <211> 380
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-A11

<400> 11502

tgagtcgtat gaaacaaagc cagatgcggt ggagcatgat ggtacagaag cccgatccaag 60
taaagaagca tctatacctc ctcaagagga aaccactgct gtagccttgg ttacaggacc 120
ggaacaaaat gaagaagcag atgcacctac tcaagtcaaa ccagttgctg ttatacctgg 180
tacgggacca gaagagaaga aagtagaggc atccacccaa gaggataatg ctgaagcagt 240
tgccgcagag ccagaatctg ctagagccca ggaaaatgcg gaagcttcta ctcagcctag 300
tcctatggag atagagtcag ttcaagaaac agctatgctg ggagaagctg aaaccaggca 360
gcaactgcca cttccgtctg 380

<210> 11503

<211> 354

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-021-Q1-E2-A3

<400> 11503

gccgctgggg aagagcttca ccatgacgtg gaacatgcmc atccaagcat agttcggaaa 60
gttgtgcttc catctgcatg ggcgttcgct gttcgattcg tegtgtgtgt gtgtgtctaa 120
tttattagag cctatagagt agttcatctc atcgtgtttg ggtcggttct gtaacttgtg 180
tgggggttgg ttacctacc tccaacacca tttgtgaagg agccggatcc cctgacgtac 240
gggcacctga cattggacca ctgacgcgtg ggtctggatc cacacgtcag cgagtgcgcc 300
gtacgtcaga ggagctgcgt ccatttgtga agctcactct tgcanggaat aaaa 354

<210> 11504

<211> 383

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-021-Q1-E2-A4

<400> 11504

attccaggtc gacacgagca tccggcatca taatcctctg gtctcgccaa cccagaaacg 60

gttcattcca gtgtcacctg tgaaccctcc agagacgcga gatgttcccc gccattggaa 120
 caatccgtag acagtgcacc tgcccgcacat ccatccgtga ccaggaacct cctggtgcag 180
 cattccccggg gccatggagg catcacgatg ggctggcaat ngacatgtct ccatttagcg 240
 gtccaaggac ctggtcattg tcaacgacac accgtgtgca ttgtgcaccc tatgcttggg 300
 tccatactga ccggatgaca taactctcat gatcaccact cgtagtagtg gcctgatcat 360
 catgatcctg aatcgtagag cag 383

<210> 11505
 <211> 404
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-A6

<400> 11505

taccggtcct aaattccccg gtcgacctat ggcaacgaag aaatgggcct tgccgcgatg 60
 atgaccgacg gtcgagtcta aagttgtggg acggaacatg tcacctactc acgtgttcca 120
 tgaagcaatc aaggacggat cgcactagat tctgcatgtc gggtagtaac tgtcaccata 180
 aggaaaaaca gatctgcgat cgtaggcgaa cactgatcag gaccatagga ggtctacaaa 240
 tacgggaggg cacgtgttca aattggttag catcgaagga gtaaagtgca agcgtcaata 300
 ccaatcatcg gatgctacat cgctgaccat gtcaatggaa tgacagtcgg acgaccggta 360
 ctatacgaga agatcagaca ggcaagaaaa tcgatcaatg ccat 404

<210> 11506
 <211> 383
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-A9

<400> 11506

taccggtcct acattcccag gtcgacacat acggccgaaa cgtcgatggc catagtccta 60
 tttaaacga gaacgaatgg tcagcgagtg gagacgtgta taatggagga gtcaccggat 120
 tggcaatttg ggcggttaact ctgcgcggaa ttcttgccgg tcgtgcacgt cttgtgtcca 180
 agacaagtgc gttggctcag taaatcgat agttgttagc gcatgtataa tcatgtttct 240

ataaatgttt cagtaggggtt ctcgttcact ctaatgttgt aaaactcaga catactttga 300
 gtttataaga catctaattgt ttgtatatat aaaaggcctg atgggaatgg ggaaaaacct 360
 ggcgatctag aggatcaaag cct 383

<210> 11507
 <211> 445
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-021-Q1-E2-B10
 <400> 11507

tcgaaattcc agggtcgacc cacacatcca gaatgtggga acagcgacaa gccttatggg 60
 gttttctcatg aacgatgtca caagatacac aagtaaacga atctaccact ttcacaagac 120
 tgattttaac tggactattg naatgcagcc agcgaagatg gaaatagaca ccgctgtcat 180
 ggatgttgat caccacatcg tcatgctagg tgacaaaagtc gacgaattat gcgaccaact 240
 gatgtaccag atcaacgacg tcattgggat cgatagctgc tctgaccctg atcaaagatc 300
 tcgtaagctg aggcgccaat cacattggag tgtcaatcac acctgttgca gctgtagctg 360
 caggctttct cgacagtcac aaatttgatc acatacatgc accgcatcat gtccttaaga 420
 atatgtaagc acttttttca gacag 445

<210> 11508
 <211> 441
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-021-Q1-E2-B12
 <400> 11508

tcgaaattcc agggtcgacc gtgccgttgc acgaagtaat tcacgacctc gacgtcgctt 60
 cgctgtacac cgctgagcat agcgtgcacc gctcgacgat gccttctgtc gtgcaaattcc 120
 agatcgagct cgctaaacca actgtgaacc aaggatga acacgaagag cttcatcact 180
 ccggtgaacg agctgaatcc aacaatcctg cgactaccaa ttctactgac gcaccgactg 240
 agtacgcgaa agatcatcac catcagcaac atcaccacac aagctcggag tcgtcgcaga 300

cgctgatca catcagcatc tgattatcaa gatccatctg ttgcgataac atgcagactt 360
catctatcgt gcaagcctaa gcctgactct aggggtacgtt gagtgataca catgtatggg 420
tacagtacat atccaaactg c 441

<210> 11509
<211> 431
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-B2

<400> 11509

acgcctgtcc gtaccgctcc gagaattcca ggctcgacgag ccaatgcgga atctttgagc 60
ggaagagaac tgtcatcagg tggctactgg atgggtgggt aagatgttgt ggcgtcggat 120
cgacattact gttctcacag atccggtgat ggtcaaaaca aatggttggt ttttcatcac 180
catgaattaa tctctgtgag ttgtattgaa gcggtataca ctaatatgga tcggagggag 240
taacaatttt agatgagtat atactatatg atttttggta gcaacgaata cattcaatca 300
gtttggctag cggaacagcg taatagatta tgtctacggg tcatctaata ttgcacgctg 360
atgtgcggcg cttatgcgaa cactgcatca tgggtcgctc acacgtcgcc gtttcatgaa 420
tttgcccaac t 431

<210> 11510
<211> 400
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-021-Q1-E2-C4

<400> 11510

attcncaggt cgacacacgc gacaggttct acatcacgat cagccaagcc caaaagcaga 60
ggcgccgtac ataccgtgct catggacgca tcaatcctta catgtccaac ccctgccaca 120
ttgagctgat cttgtcagag aaggaagagc ctgtgaagaa ggaggctgac aacgtcgctg 180
caccaaggaa agctatctaa gctaacggag tggctgcatt cgtccaagaa tcttagttgt 240
agttcttctc aagtatcttt gttggcagtg tttgttgctt ccttgatggt tttgttacca 300
acatggagta aggatttggt aaggttgatg ctatccttgt gatcgcgagt ggtctttata 360

tgctaaaaca gtttcagata ttgagcatt agcccatcag

400

<210> 11511

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C6

<400> 11511

taccggtcct gaattcccgg gtcgacggaa gctgcgggcg acgctgaact gatggctcga 60
taggcacacg acagcatcat atgatccgcg taaaatgtgt catcctatca gacggattga 120
tcacagtcag aatgcccaca cctgtgtgta tcgccaccat ctctatttga cagataagct 180
agtgtctgtc atgtcgagta gtagtctcct gactcagtc aaggaggatg gatgtatgct 240
ctgtccgttg caatatcacc gcgtgatagc actccgtgat ggatgtaatg attgcgcgtc 300
agtcgaacta ctgtggcttc acttgtcgaa gcctgtacca ttgtggaacc gctactcaac 360
aggctcaacc cctagctaca cgtccaggag atgtcaaaga tctaccagaa tgacctgagc 420
attc 424

<210> 11512

<211> 441

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C7

<400> 11512

attcccgggt ccacacactc atcggcgaaa agcggatcta ccacatggcc tgcttcaggt 60
gccaccactg caacggcacc ctcaagctct catattaaaa ctcaagttcga aggagtgtc 120
tactgcacgc ctcacattga ccagctcttc aagaggaccg ggagcctgga caagagcttc 180
aattgcactc caaaggttgt caagccagaa aggaatgttg ggaatgagaa tgctactaga 240
gtctccagcg catttgctgg cactagagag aaatgttttg gatgcagcaa gacagtctat 300
ccaattgaga gggttactgt gaataacact atgtaccaca agagctgctt caaatgctgc 360
catggagggt gcaccatcag cccttcgaat tacatccgc acgaaggcaa gctcttctgc 420
aaacagcacc aaaaccagct g 441

<210> 11513
 <211> 419
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-C8

<400> 11513

tacggtccta aattcccggtg tcgactgatg cgtccgaaag gttacgcgca gctgatctgt 60
 acatgagcgg tcgcaattct gcgcacatgt gtgagtagca acatcggcca gatgacagcg 120
 ggtctgtttc aggtgttgga cctgtcaaac actaattcac agttgtcagg taagtaatcg 180
 taaccagatg gctcatgtga cgatgatgcc aagtgcataa aagagcactt gtctgggggt 240
 tcgaagctct gcatgctcct agcccatatc tgatttgata caacttaaga catctcctga 300
 cctttacagc ttcccatgcc aatggcgatc atattacact gactgatctg ggatgtgtct 360
 gacgctacaa ccatatgtgg catgcagtaa agttccattt aaccagttgg agattcacc 419

<210> 11514
 <211> 378
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-D7

<400> 11514

gggtcgaccc aaccatccac agagatccaa actcaggtgc catggagaca gtcatggggg 60
 tattgcccc catgttttgc caaactgctg ctgccatggc aagtgcagtg acggactatg 120
 atatcatcat gcctcacaac gactcgctta aatttctggc ttatgctcac gatttaatca 180
 tgctgcgaca cttactcagc atcagtcttc catcaatact acgcattaca tcatgatata 240
 tggcagtggt tcatcttcat ccttaatcca tctggcttat cattttcaaa aggatcctga 300
 cactcgctg gctatcctac gcattcaagg ttctggccat agattaacat ttactgcacc 360
 acatcatggt gtaattgc 378

<210> 11515
 <211> 386
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-E10

<400> 11515

ggtcgactga cgcgtcttag gcctcgaga tgatctgtat tcggggaatt tctgcatgtc 60
gtcggatgta ttacgtgtct ttggtacaag tgtcagcatg agtgtgtatc ggactcctaa 120
tcaaatacaa gcactcctga gtgtgtcatt cgactaaatc taagcgtctt aatcactcta 180
tctttcgagc atctggcatg ggattcagtg tggagtttta gcgttttgga cctcctcgct 240
tggcgactca cagtcactgg actcataagg tacttgaaga aacagttgca cacgcttggc 300
atcagtccag catgcctgca aaaggtacca atgcaccctg tactacagca ttttgtacac 360
agccgtatgt accccagaga cattac 386

<210> 11516

<211> 411

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-E5

<400> 11516

tacggtccta aattccccggg tccacgcatg cgtcgggaaca ttagttcatc atggctagtg 60
cactggctgg cagcacctgg ccttctatgt cctctattct ccacatgcog ttcaccttgc 120
gttgccaagg gagatcccct gcaatgtcac aacattcttg ctgggtcagt gtgatccgat 180
gttaaattgg atatttttcc ctatcgtgtc cttgcacaaa ctttatgcga ttgttatcag 240
ttggtcagac gtcatgacag tgcttccttg gaacgttatt gaagcaactg ggacacattt 300
accggattac ttccacatga ttatgtctga atacagatta tgacactacg agttgtctgg 360
gtcatcgaa aattggcttc ctcccgtcaa tgtactgctt gctttcatct t 411

<210> 11517

<211> 345

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-E7

<400> 11517

ttccccgggtc caccacaaca tctgaagctt ctacgacaac tagtctgtga atcgcatat 60

cgtcacttct tgacccatca tctcgtctca gctgttgcca gtgtctgacg tgatcatggc 120
 agtgcggaatt atggtgaaat caacctaaac cgatcactcg ccccttacag gccgggaaga 180
 catcttggtt ggctgtttat cactgtgcgg tccctattag tcatcgaata tcgacgtggt 240
 agtgtggtat gcatggatgc aatggatcgt acttgtcaca aactcgaaga cagtatgtcg 300
 atgtgtatct acgatagcgt ttgactgcag actagtgcag tgttg 345

<210> 11518
 <211> 425
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F10

<400> 11518

caactcccta aggtgagtcg tattaagact ttggttatcc taaagacttt gagaatgaag 60
 aaattggtgt gaccttgaag atttgatata tcatgtaagg attatgaagc gtgatgactt 120
 ttgttttcaa agtttcattt tctctttctt gagtcatagg aaacaggata ctgttaaagg 180
 gggtcgaggt aataactaatg aaactgattt ccaagtgatg ctcatctcaa aatcctacac 240
 ctatgcaatc ctttctagtg aagcaattgg aaatctcata tcatctcagt caatttcttc 300
 agtgacagag atgaagatct tctggtctct gatgaatttg tcttgactga cgagtttagga 360
 attcgccagt gtggattgcc tacacagtga ggaacatgat agccctgacg aattctgtga 420
 tgccc 425

<210> 11519
 <211> 416
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-F2

<400> 11519

caccaggact ccgtcatggt cgacaaagga caacaaattc tactattacc cagaaatggt 60
 ggggacagtc atcctcatct tgggcagagc cttgggcggc ttggacggcg tcacgcgtgg 120
 gtgcttgga gctttttctg tcggcgctgg agatgaggtc cgagggcgct tcgacgactg 180
 cccaacaggg atagtcgcct taccacgttc ccggcgggg tcgtttgtaa gcttgatcg 240

ccgttccgag cagggagatt tgacctcttc ctctctctct tcaactggagt cgtcgtcgtc 300
atcacccctct ccttcgccgt cagattccca ctcttctccc ccgtctccac tttagcctcc 360
actcgcctcg ccttctctcg cctgctcctg tgcctccatcg ggtgtcagat acatct 416

<210> 11520
<211> 404
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-021-Q1-E2-F9
<400> 11520

ttccccgggtc gacgggttgta tgacatacca caaaatgatg atctttggag aatggtttgc 60
cgtaatgcat ggggtactga gactacgcga gctcttgaga ctgtgcctgc tgcgaaaaga 120
ttgggctggg gtctgatggc caaagaacta agcaccctgg aagctgttgc atggaggaaa 180
ttgacagttg gaggtgcagt ggagccatct cgatgcaact tcagtgcctg tgctgtacgg 240
aatcgtgtcg ttctctttgg cggggaaagt gttaacatgc aaccgatgaa tgacacgttt 300
gtgttggatt tgaatgctag caatccggaa tggagacatg tcaatgtaag ctacagctcct 360
ccaggccgct ggggccatac actatcttgc ctaaattggat cttg 404

<210> 11521
<211> 465
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-021-Q1-E2-G5
<400> 11521

ggtcgaaac tcgcgggtcg accgtttcct gacctcaaaa tatttccatc atccaaatat 60
gataaagggt tcagtcaaatt tgccaataag gttcatgaga tgggcttgaa attcggcatc 120
catttaatga aaggaataag tacacaggct gttaatgcga acacacccat cttggatatt 180
gagacgggaa aaccctatgt agagaacggg cggcaatggg cagctcgtga cattggcctg 240
accataaaa catgtgcatg gatgccacat ggatttatga gtgtaaatac gaatattgga 300
gctggacggg ccttcttaag atctctttac cgacagtatg cggattgggg tggtgatttt 360
gtgaaggttg attgtatctt cgggtactgat tatagcccgg aagaagtaat aactatttcg 420

cagctcctgc aagagcttga ccgccaata gtactgtcca tctca

465

<210> 11522

<211> 396

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-G8

<400> 11522

ggtttgcatt gaaggaaaag aatgggaaga tcgaggccct taccagtgcg gctgacgtgc 60
tgcagctcgc agtggtgaa gcgcagaaga agaacaaggg tggatatctgg gcgtgggtgt 120
atgccgccac caccaccatg gtggccgcaa tctccctgat ctatgctgcc aggggccatt 180
gaaggagtgc acttttcttt ttcttttttc ggtgttgatc ctctatttgc atgctagtat 240
ggcactcgaa atggtcaggc cgctatctta gctgcatcac atatgatgaa tcggctggta 300
ctatgcaatg aaatcaaatt ttgcttgca ttctggtaac aaaaacaccc cggcggaagg 360
cagaatagcg gccgctctag aggatccaag cctacg 396

<210> 11523

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-021-Q1-E2-H7

<400> 11523

gggtcgaccc tgcttcctca actgccgtcg ccctgcttc ctcaaccgcc gtcgccctg 60
cttctcaac cgccgtcgcc cctgcttccc caaccggcgt cggccctggg gtgactggag 120
ctcaggttgg aggtgaaccc aaggttgagt gatttagccg atggaagttt cttaaaccatc 180
actttttgtt gccctggtg tgactggagc tcagggttga ggtgaaccaa ggttgagtga 240
tttagccgat ggaagtttct taaacatcac tttttgtcgc ccctgttggt actggagctc 300
agggttgagg tgaacccaaa ggttgagtga ttcagtcgat ggaagtttct taaacagcaa 360
cctttggcat ttgaccctaa gctatgattt ttgtcattc ggcttgatgt gtatttctta 420
ttacctcgtt gatatagttt ttgatctg 448

<210> 11524
 <211> 435
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-A1

<400> 11524

```
ccggtcctag gattccccggg tcgactgaga cctggataaa tctcaatcga acgatttttta 60
gctctgcctc ccccgggcgtc ggcgccagcc cccccgtct tcggtggcct tagggccatg 120
ggagcagatc tcagcccttg tcggttggac gactctgttt ttagatatgt ttctgagttt 180
tgttatggtt tgtgtcctac acgggaaggt gagacgacgg cggctccctg aagatggaat 240
atacgtctcc ccgtctagtc cctgtgccgt tgctgcacat actattgtct gtgggcgtgt 300
ggatgtgtgt cttcaacgaa tctgtctttg atggatttgc tcggatctgt tcatcattcg 360
tctatattct tgtgtcttta ggttgggtcc ttctgatcta cactcttcat ccacgatggt 420
ggccgttctg gtgca 435
```

<210> 11525
 <211> 425
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-A10

<400> 11525

```
taccggtcta gaattccccg gccgacgaat ggcacgagca accatcagcg acaatagtag 60
actgggtgac gattgatggg caaagcgttg gtgcctggat caacctcgtg aagcaactcc 120
acatggagat ctcaaggcga acacttgcca tgtcttcggc aggtgaagaa tagggcagct 180
gcagctgcta ccgcgcttta tttttattct ttggaggctg ttgggtctcc ggccgggtgt 240
atctactcga tagcttttgt gccatatgct gttttgtaat tgttatatgt acgcacctt 300
tttggtttgg gttgtaatta atttgtttat catgtagtat atgtttttgt atgttttatc 360
atgtgctaaa tatctatttt tacgtgcttt gctattaaaa aagaagaaga ggggaaggaa 420
gagag 425
```

<210> 11526
 <211> 431

<212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-A6
 <400> 11526
 ccggtctaga attcccgggt cgacactgag gggtagccgc gcgagcttaa ttgcgagtga 60
 tgtggagatg tgttgacctg gagagtaacc gagagttgaa cagaggcgt ggccgggcat 120
 tcttagccct tgtcgcaagt cctcgagatg gggcgacagg gtcacatatt tcgtgagtct 180
 ctgcttgtaa ccgcgtgttc ctaatccact acattctgga tatttgatcc gaggggcctc 240
 tggcctgata gcactaacca tcacgtgggc atagtatggg cgttttgctg catatacatc 300
 agccaaagct taatcgacct cagcgactga gcggcgcgcg cagggttgga ctgcgtaagc 360
 tcttcgcttg ttttaaggagg tagttaggtc tgctcaccgg ccgcgtatgt aacgtgtacg 420
 agttcccggg g 431

<210> 11527
 <211> 400
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-B11
 <400> 11527
 taccggtcta gaattcccgg gccaacgcga gaagacaaca gaagggggtt gtcattgcgg 60
 accttttcgc ttcgacctct ggacctata gtccggagtg tgtccgaata ccctctcggt 120
 tatgtaagaa ctggggcatg catggagaca aggcataggg gtcataagtg ctttatcaga 180
 caagtgccca actagttatg ttatattaca tggtagtaa gaaacatctt ccagagagaa 240
 tagttccgtt aggggttcct tttcctggga ggcattgccct aagggtgcatg tccgaactgt 300
 cggaaagagc agaaaagcat ctggggggcaa ataaatgaat acgaaagatc atcttttagt 360
 tcaccgaccg aatattccct taagaacgct agctttcggc 400

<210> 11528
 <211> 376
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-B12

<400> 11528

ctcgtgggtcc aacgctacac cctatagtga gtcgtatgag tcgtacaaga aataggggtgg 60

ctaaactgac aatgcccgtc ttactgccc tcttggtgat ggccctgttg atcactgcat 120

catcttcagg agaagtttca acgacagaac gtgataagga tgccctccaaa gtgacatagg 180

gtcacacttc tctttaccat cttcagatgc acagccacag caggatgagg attctgacag 240

atcttctgga ctacgactac ggaggagcca actccataca cgatccacac aggaggcccc 300

ggaatggggg acattaggca ctagataata gctagctctc gcaaccattc aagatagtcc 360

cgtgttttgg actgggt 376

<210> 11529

<211> 429

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-B5

<400> 11529

ctcgtggggcc gacacgactc cctatagggg tgctagtatg atgttgcaag tacttgagaga 60

gtgccgatat gaaattaagt gctagtgtgc ctgacatgag aaagaaggca gaaggaagag 120

gtcttgagaa ggaagaggaa gattatttca atgagagtga cgaggaagat tcagtaaggc 180

ggactaaaca tgcacacagt gaacataatg aagaaagcaa ggatgatgta gccaatggaa 240

gcgaaactgg tgacatatcc tcaaggccta aatctggtgg gcttgtggac tatgccgatg 300

atgatgacga tgatttcaat ccgccacca aggagcctga taggcctgtg gatgacgatg 360

acctcttaac tatatccaca gtgaatcggg aattagttaa cacgggggat ggaaaacatg 420

cagatgggg 429

<210> 11530

<211> 272

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-022-Q1-E1-B6

<400> 11530

accggtctag aattccccggg tcgacagtaa aagttaccag aaattgtaac aaaaatgttc 60
 ggtggttgcc aaatattaca agggtaatta tgggtgcagca aacacaattt tacaaaatac 120
 ctaaagtacc tacactaact ttaacatgaa agggaaaaca cataaaaaaa aaaaaaaaaa 180
 aaaaaaaaaa agcggccgct ctaaaagatc caaacttacg tacacatgca aacaacgata 240
 tancaccaca atagaaacac ctaaattcaa tt 272

<210> 11531
 <211> 76
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-C1

<400> 11531

tactgagtcg tattaaacct tacgtcagcc tgcattgctc ttcatcactc ttcaaacctg 60
 tcaaccacct tcagct 76

<210> 11532
 <211> 428
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-C11

<400> 11532

gtgggctgac gcgattccct agagtgcgac gtattattcc aaggagcttg taagcaagag 60
 agtgagaggt gtcttctcct tcttctcct cttcttcttc atggagagaa acataagaaa 120
 accattagtc tcatcatctt atggagctga gtattgtccc ataactattg ttgcatgatt 180
 tagcatacta taaatgttaa tcaggccatt aaatttgcatt tgcattggtc cccttaaaga 240
 attgcatttt ttcagttatt gcttattggt gtttagcagga taaatatgtg tattttataa 300
 cactgttgca ggactgatga gaatttggtt ggcttttttc ttgcaccggc aacatcatct 360
 ctacatctga tgttttaggt gtgttagtaa tgagtaataa gaaagtgtgg caaataatcg 420
 ctgaacag 428

<210> 11533
 <211> 415
 <212> DNA

actacttcaa gaagcttctc aaaggggcag tgctgacaac atcactgtcg tcattgttcg 120
 cttcttggac ggaacgacga cgtctgctgg agatggaccg ggcgaggagg ttgccaagga 180
 ccaaagtgag gaggtcgcca aggaccaatc ttcatagttc ttgttcctcc acggcgttgt 240
 atccgctggt gtatctgatg ctcaaagtag atgtcatgtg gcggcgccct cccgtgctgc 300
 gaaaccgaaa ctgacttggc ctgagtttcg tcgttggttc atgctcccgg ctatcctaga 360
 tggtaggtaa tgtcggaaca caggggggatg gtggggcagt gttgttacca tatg 414

<210> 11536
 <211> 450
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-C9

<400> 11536

ggtaccggtc tagaattccc gggccgaccc caaaataaaa accgtcaaag aacaccttcg 60
 gcggtctgcc gtgcagaaga gggaagcaat tggcgaagaa gtggctcgac tgttgacagc 120
 agagttcatc cgtgaaatct accactccga gtgggttagcc aatgtagtca tggttcctaa 180
 gaaggataat tcaactcgta tgtgcattta tttcaagcat atcaatcggg cctgcccga 240
 agatcacttc cctctccctc gcactgatca gattgttgac tcaactgtgg gatgtgagcg 300
 cttgtctttc ttagatgcat attccggata ccaccagatc cgactgtatg gtcccgatga 360
 aataaaaaca gccttcctcg cccattcggg gtgcttttgc tatgtcacca tgccttttgg 420
 tctgaaaaat gccagagcca cattcatgag 450

<210> 11537
 <211> 389
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-D5

<400> 11537

taccctatag tgagtcgtat tacgtgcgcc tcgtcaagcg ctgccacaag cccgaccgag 60
 aggaattcac cacggtggcc agtcagacgg ccacggggtt cgtcgtcatg ggcttcgtcg 120
 ggttcttcgt caagctcatc atcatcccca tcagaattat catcgtcagg tccggctgat 180

ctcatctccg tacgtgaggg gccgcaggac gacacgaagg ttccattca tggatgcagc 240
gctggttttc ttagccccgt aacctaaagtc aattcaatta cgacttcatt gtacaggaca 300
gttcccttgt gttttcactt gacacagttg tattggtaga cctggagcac ttttgaacct 360
gattccggct agaccgttgt atcaagcag 389

<210> 11538
<211> 363
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-022-Q1-E1-E4
<400> 11538

cctatagtga gtcgtactac acctcaagat gttgtgccga cccagtctac aagggtgtca 60
caaggggtat gatgtgcacg cgtgtgttca tagggatgat tgtatgtacg tatgtatcag 120
cgtatgcac tgtactgtgt taagagacgt agataatcag acatctattc taaattttag 180
tggtgaacac taatgagggc gccttcgcgt ttgtatgagt gtatatatgc acacacacac 240
acacgttgta cataagcatg attaaacctt tatgcaccat aatgacacct atatgcacag 300
ttcaagtctc aatgacaccg ccatgctttt aaatgaaaag cggccgctct agacgatcca 360
agc 363

<210> 11539
<211> 236
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-022-Q1-E1-E6
<400> 11539

actactccct aaagtgagtc gtactacccc aacttctttg ttgatttcgg gaccgagcct 60
gaaggtccct ccttggtcca tgagatgaga tatcctggtg gaaactgcac ctctgacata 120
tggtatttaag acgaaaggtg tatgacacat gcagctggag attcatggtg tttagctcac 180
tgttattaaa atggtctcct ccccgctgc ggtgttttat gtgatgtggt atcaat 236

<210> 11540
<211> 445
<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-E9

<400> 11540

tcactactag gactcgtagt ccacgcgtac accctatact gagtcgtatt attcaaacca 60
agacacttaa ttagtttggt cgttggcgta ttcatatagt caaggctgat catagtgggg 120
agtaacttat actagtgtca gggtgaaatg cgcgacggag gagaagcggg gtggaggccg 180
gttggaacgc tggagggtgac ggagacgtag agttctggca gggttgtggt gtggcgcccg 240
ggatgatgga gcagcggcga aggcaagaga gaaataatga aggagagaga atgatgagga 300
tgaagggtgtg ggggtccgga aggggttttcg atgggccagg gtgttgaggt tctacatgta 360
tggtgtccag gcttccgcaa ggccacacac gtttgtctga agtttgctga aaaaagtatg 420
tctggaccac tcggcggacc gatat 445

<210> 11541

<211> 414

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-F4

<400> 11541

ccggtctaga attcccggat cgacgacgac cttcagatcc acggacttcc cgaggacagc 60
gttagccgct tccggcagtc cgcccctctg actcgatgaa tgggcacttt gatacgcgag 120
ggatttcgct gtgggggata acgtttcgca tgggactaga tacgtgcaca tagagctcag 180
gagaatacca gaaccaacta taacagcggc gatccagtct ctcgagcact atcagtcccg 240
ccagatcagg cttctcgggc gcgcacgtgg actgcactat gatcgagaat gtgcgaattg 300
ccgcggccat cgtcggcaga cgaatgtacc accaaatgtc ctggatccct gcgctatctc 360
tggacagctc caccagatca tcttcacact aatgtaacgt gatagatgcc cacc 414

<210> 11542

<211> 412

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-F9

<400> 11542

accctatagt gagtcgtatt acccagcagc actcataggc ggcttctcgg cattttccgt 60
 ttactagaca atatactagt attaaaacgt agcggaaaca gatggaacta gttgctgtca 120
 ttgttttttt ttctcctgca gtaccggaga tgaatacaaa aaccctggaa ccaagtactg 180
 aaatgaatac taccaaaaaac gaaaatggaa caaatacggc acggatacgg agacgaaagc 240
 cgagtgttaa ccggaactaa agacccttg aaccatagac aaaataagaa gaaaagaaca 300
 aacttgttca gttaataaga tgattactaa atattatgat ataccatgac tataaaatag 360
 gatatgtcag cgacagcggg gtgctcgatt aaggattttc tctcgtgctg gc 412

<210> 11543

<211> 424

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-G10

<400> 11543

cccgggccga catcacggag gatcctgact tcaacaacat gtacgagctg tacgacccat 60
 caacggtgat gtttttcttc cgcaacaagc acatcatgat tgatctcggg acaggaaaca 120
 acaacaagat caactgggca atgaaggaca agcaagagtt tgttgacatt gtggagactg 180
 tatacagagg agctcgtaag ggccgtgggc tgggtgattgc tcccaaggat tactccacca 240
 aataccgtta ctgaggtatc tgtgcttggc tattcaggtg cagtgtgtgg cctgctctgt 300
 tctgtgaagt gcgctgtgtg acccttgatg taatgtctgt caactttgaa agtgtcgcgt 360
 aactatgtat ttgtatcttg aatatcaaca tgcataaac ctgtaaccct ttgaaacaag 420
 acct 424

<210> 11544

<211> 375

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-022-Q1-E1-G8

<400> 11544

tacggtctac aattcccggg ccgacgacga cccctactac accggaggtg cctactacta 60

cgtgctgccc gctgacgacg acctggagta gtttaggagg atcccaggca ggaggcctgc 120
 gcctcttttcg atctgtatcc cagtttgtgc tagccttctt aaggcaactt gtttaactta 180
 tgtctgtact cagatattgt tgcttccgct gactcgtcta tgatcgagca cttgtattcg 240
 agccctcgag ggcctgggc ttgtattatg atgcttgtat gacttagttt atgtgtggag 300
 ttgtgttgatg atatcttccc gtgctaaaga aaaagggggg gatgggggga aagaagcggg 360
 cgcgctagag gatcc 375

<210> 11545
 <211> 396
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-G9

<400> 11545
 acgcgtgggc cgtcgtaaca ccctatagtg agtcgtatca catcgaaaga cgggacacct 60
 ctgcctctat caagtggat cagatttcca ggttgctcgg tgagatttta cagtttttcg 120
 tagtttagat cgagtctggt cttcatacct acagtccacg aaaaagccac aaaaaaaaaat 180
 tagggtagt tcatcatatc cgaaccaatc tgagccttg cataatcttt ttagggtttt 240
 gctttgttga atttgcggtt gcatcgtcgt gtctagttagc tgggtcttaga gtctagtctt 300
 ttagagtttc gagttctggt cataagttgt cacgccgcg cgcgagcatc atcgcccctg 360
 ccatctacca ccaccgcgta accgccagcg ctccga 396

<210> 11546
 <211> 438
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-022-Q1-E1-H12

<400> 11546
 ctcgtagtcc atcactacac cctatagtga gtcgtattat gcggctattg acaaacctgg 60
 cacaatgctc ctcacgcatt atcggcaatg caggagtgg acacgatgac atgatggcac 120
 acacacattt gggcgatgac aagcttctga tcattcctat gatgaccacc ggtgtactgg 180
 aagtcgaaga cggccacttt gtacatgtca accttagcaa gcaaattcat catggtgttg 240

atggagtcct cgcgcgatgc cgggttggtg gtgtacacca ccaagacgtc gttcgccctc 300
atgtgggtgt ccacatgata cacaccatgc tccattggag cgccactaga tatcttctct 360
gtattacttc gatgcatctt tcgaccgtca tgtttattag gacacccatc atcagtgtta 420
gctttccttg catgatca 438

<210> 11547
<211> 57
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-022-Q1-E1-H2
<400> 11547

atagtgagtc gtattacttc cgggtgcgtcg tcctctgcgc ggtgcagcga tcggcaa 57

<210> 11548
<211> 99
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-022-Q1-E1-H8
<400> 11548

ctcgttgtct gtaactacac cctaaagtga gtcgtatata atgttttcta gatagcagag 60
attaaatatc tgccaccgca acagggttaga tttaaaaca 99

<210> 11549
<211> 398
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-022-Q1-E1-H9
<400> 11549

acgcgtgggc caacatgacg ccctatagtg agtcgtatta ggtcctcttc gcctccgtct 60
tcctcctctc cgctaccag gaattcactg aatttggaac tgatggcggg ccagctgcaa 120
agaatcttga gcctaagttt aacagcttca ccagtgatat atctgtacac ctccggagttg 180
tggtgcctca tgtagagttg aagcatgtga ttgctgctag cattgggtctg aagggtctgg 240
gaggtctgct gtttatcttg agcagttcat ttggtgctta tctcctggcc ctctaccttg 300

ctttcatcac accggttgtc tatgacttct acaactacga catggagaag gctgaatttg 360
 tgcagatctt catgaagttc acagagaacc tggcgctg 398

<210> 11550
 <211> 353
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-023-Q1-E1-A1
 <400> 11550

taccggtcca gaattcncgg gtcgacacgc acgcgtcaca tctgactgt gatctgcacg 60
 cccagattag gaagatcatc gccgatcaag atcgcgcacga ccacattttt tgtgtccccc 120
 caatgctcat aggtggggcaa cctagccacg gatccagggt atcaaaactc gcatccagtg 180
 cggatctatc cgttgcaagg gtatccgaac agtgtgacac aagcaaatag tggagtttga 240
 gatcggcgga agtactgtaa aacggtcgcg tactacatgt atgtgcagat gtacgcatca 300
 catgccttga ggcgttctgt ggtactaatc ggaccacaat gcaacggtga aaa 353

<210> 11551
 <211> 447
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-023-Q1-E1-A11
 <400> 11551

attcccgggt cgactttata agttgtgagg gttcaagtcc ctctatcccc aaatcctctt 60
 ttattcccta actatactat attattatta tttatcctct tttttttctt tttatcaatg 120
 ggtttaagat tcattagctt tctcattcta ctctttcaca aaggaatgcg aagagaactc 180
 aatggatctt atcctattca ttgaatagat ttctttttta ttagagtatc ggcaagaaat 240
 cttggttatt cactctatct ttaagtttta ttaagtaaa ccatgcacaa tgcataggac 300
 tccccccca ttttcaaatt ttaaatttga aatacttta ttaattttta gtccttttaa 360
 ttgacataga taaaaatact ctactaggat gatgcacaag aaaaggatcat gatagctcag 420
 tttgtagagc agaggactga aaatcct 447

<210> 11552
 <211> 456
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-A12

<400> 11552

```

ggtagcgagt ccagaattcc cgggtcgacg aaccgaccgc atgacgcaat caaatcaac   60
agtgtactga aatgtaaccg accgccggaa atcgcatcttg gatgctgacg agtagcgcca 120
gtaccgaatc ccatactcac ctagaatgg ccctgcgcgg tctcctcggc tgggttgccg 180
gacagatcac tgggtggacga cacaactagc acactttgat taagtagaaa gtacatccat 240
tagatatata aactactaat acgcatacgt gaaaagtgc cgtacgggtg atggactagc 300
caaaagtgc gcctcgcttct taaatggtaa ataataaaga aaaggaatga tagatggaat 360
cttcctata tgggtgccacc gatctggatc gccattgacc ggtcctcctg tagtgcatga 420
tcatccgaag gatcgaggtc ccagccccc agcccc                                456
  
```

<210> 11553
 <211> 429
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-A2

<400> 11553

```

gggtcgacga acctactcaa aatgaagatg ttgagctggc tgccataaag ccagaggcgg   60
tggagcatgc tggtagagag gccgatccaa gtaaagaagc atctatacct cctcaagagg 120
aaaccactgc ttagccttg gttacaggac cggaacaaaa tgaagaagca gatgcaccta 180
ctcaagtcga accagttgct atagtgcag attccatgga gcatgctagt accgaagttg 240
atcaaagtat agaaacatct gtgcgtctcc cagaaaaaac ttctgttata cctggtacgg 300
aaccagaaga gaagaaagta gaggcacct cgcaagagga taatgttgaa gcagttgctg 360
cagagccaga acctgctgga ttccaggaaa atgcagaagt ttctaccaag cctagtcccta 420
tggagatag                                     429
  
```

<210> 11554
 <211> 423

<212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-023-Q1-E1-A5
 <400> 11554
 gggtcgacgt gtgcgagcat gactgggtcc caaccacac tgcaccgagc atttcggaac 60
 aacagcctca ggcactcctg cttgcggtag ggcctgacca gtgaccagca cgctgcacgc 120
 agcaccatcc cgaacagccg gtgaggtcgc cggcgccagc gacagcgagg tgctccttca 180
 tcatcccgta tgatacgaca cgcttcccggt tccccctagg cacgggtatcg atatggccaa 240
 ccaagtaata ccactccgcc gtagcacgca gccgatgcac caccgctccg ccgtagcacg 300
 cagccgtcac aagaatgaga tggcgctgtc agtcaattga ctcagttcca cctgcacgag 360
 tacagtccaa gaatcatggt cacatgattg tcccgatgga ggatgggttca gacgttcagt 420
 ccc 423

<210> 11555
 <211> 442
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-023-Q1-E1-A6
 <400> 11555
 attccccgggt cgactcccct aggggtttctg gaatatattgt gaatttatag agctgagagg 60
 cgggtgcaaca gagctacgtg tgttggttct atatccggca tgtctttag taggggtccc 120
 aagctaggcg tcttgagcg gtggaacac ggacacagga ttttaccat ttttgggctc 180
 tctcaaagag ataataccct acgtcctact tttgattgta ttgatatggg tgtagtacat 240
 ggtacattta tctaccagga gattgttcta atgaatatta gatcatgtat tgactagcct 300
 ggcctcactt tatataatgt accagaggcc tagggtttag aagagccttc atcttggggc 360
 caagtcttgt ggaatatccc ttgtatgcga cataggctgc tagaactggc ccaatagtga 420
 aacgccatgg ggggtcctct tc 442

<210> 11556
 <211> 441
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-A7

<400> 11556

attccccgggt cgacttgcaa agtcaccaga gcgagttcca cttcctcctc cttttgcaag 60
ttataatacc acctcaagag cagcaccatc ttgggcaaata aacttccgaa gtgtgccttc 120
taatcttagg gaggaggcga ctttagattc aacaatcaca ccgtcagtta cccccacc 180
agctgcagat gctagagcat cagaactcca attctgccca gtttgccttg ccaaaccg 240
ggacatggca tttggttgtg gtcacagac ttgttcaggg tgtggaccgc aggtcgtgga 300
ttgccctatc tgtcgaaggc caattgatac aagagtaaaa ctatactaac agcctcacat 360
gcctgactag gtttgactga agtacgtgg agtggtgaaa gtagaatcca tggaaaagaa 420
aaagaactcc gtttgactg t 441

<210> 11557

<211> 345

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-A8

<400> 11557

ggtcgacctg aaggccgaca agaagaagat taaggccgct gtcaagaaaa tgtacgacat 60
tcaggccaag aaggttaaca ccctcatcag gcctgatggc aagaagaagg cgtacgtgaa 120
gctgacacca gactacgatg ctcttgatgt ggccaacagg atcggcacat tataagtcag 180
agggaggggtc ctgcagtagg cgcttgtgtc gtggtttcgt gtgttattgg aattttgtag 240
ttgttactta gcaaaggggc tcagtggctc gattgcctac cagagtggct gcacactttc 300
atgaatttga ggcaatcgaa gtgacttggt gttgagcttt gcggt 345

<210> 11558

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-A9

<400> 11558

gggtcgacaa agtcacgagc acggtcgaaa acaccctcc aacaaaagag aagatcgatg 60

tctacatgtc ctactcaaag gaaaaactta gcaaacttgt acaggcatat gtcggcaagt 120
atgtcaaggc gtagcaccac cccgccggcc aaaatggcga catcgggggt ctgtctgttt 180
ttgtgccttg tgtgacagga agaatggaaa gcagggttta ggtggcaagg gtttcttttt 240
gttctgtttc aggcgccttg tgcaaatggt gcctagtgtt gtatcatcgt ctctcctttt 300
tgtacaacaa caccatttga aacatgaacc tcctgtagcg gtagatagat ataggttatg 360
caaaagacgt gggtcggtcg tcgtcgtctt catgaacacc gcaccgggcg tgttcgggtg 420
ttgcatgcaa gtagaacttg ac 442

<210> 11559
<211> 449
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-023-Q1-E1-B10

<400> 11559

attcgcgggt cgacccaatt acctgtcagt tgtttcctaa tgtttgggat gtcgtctggg 60
gtgaatcttg gaacaacct tgcttcgcaa gcactagtga atttaagagc agaaaccccg 120
cagtcgaacc tagacgacaa aaaaatatgg aaaacagtat gttcttagtt acctaatttc 180
atatatgtac tagcacttag atgacctaga taaagaagaa gaacatgaca tatcaaccgg 240
ttttgagacg tatggttgct tactcattgt ttgcttcgg tacatcgata ttgattagtt 300
taaaaccatc catgccaata tgagattttg ggtaatgagt cgcccataga attcgaacac 360
ttgaaaccat acgccttgcg caatcatcca gggacttggt ggcaagagtc ctccgcgaat 420
cgagcacctc anactttctg tcccttaaa 449

<210> 11560
<211> 467
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B12

<400> 11560

gtaccgatcc agaattcgcg ggtcgacat tccataggaa gggcatcaac actgtcaatt 60

gcagaggctt ggacctgctt cggcatccag tagagcaaac aagaagggtca agccggaaac 120
 aaatatttca tctctgttcg gactttctcat ctcgcaatgg aagccaagtt ctttcggttc 180
 ctgaagcttg ttggagttgg cttcaaagcc aggacagagc gcgaaggccg cgagttgttt 240
 ctgaaactgg gctacagcca tgagggtgcag ttcaccgctc cacctgccgt ccgcgtcttc 300
 tgcttcaagc ccaacataat atgctgtact ggcatgaca agcatagagt gcaccatttc 360
 gctggagctg tccgatgcag taaacctcca gaagtgtaca aggggaaggg catactgtac 420
 atcgacgagg tcataaagct gaagccgggg aagaaacagc agaagaa 467

<210> 11561
 <211> 416
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B5

<400> 11561

gtaccagtcc agaattcccg ggtcgacatc ttaccaaac atcacatctc atatgctaag 60
 cactggaccg tcaatcgcgt tggcatcagt gtgggcgctc ctgagcatca ttctgaccac 120
 tgcagccttg ggattagtcg tcgacgctgt ggctggtatg ccttcctagg agatctggtg 180
 gcggcattga atgccataag cgctgtcgc atgtattcca ctaattgcgc actacctcgg 240
 gcatctattt caaattcata gaggacgcaa caacttggtt tttcctcatc atgagaatga 300
 gcttgacaaa agtcgagcag cttatccaga cggtcgcgtc aaatgctgga tgcatacatg 360
 ccttactagc aatgatgatc atcttctgtc atgatcactt aataccttct tcagga 416

<210> 11562
 <211> 441
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B7

<400> 11562

gtaccagtcc agaattcccg ggtcgacacg agaagacaac agaaggggtg ctgacgagcc 60
 tgcagattct gattgcttga aacactttga tgttctgcag tgccctccgg accatcacta 120
 ccttgaaaac ataccacatg gtaccggtgg aagaaagtgg gtcaaaaaag ttcagcaaga 180

atggggcata cttgagaaga atctagcaga ttatatattat gtcaggggat ttgaggatcg 240
tatggatctc atgagagctg tgattattgg agcaagtggc acaccatacc aagatgggtct 300
gttcttcttt gacttctacc ttccacctga gtttccacaa gtcctccgt cggcatacta 360
tcagtctggc ggcttgctg taaatccaaa cctttatgtg gatgggaagg tttgtttaag 420
cctcttagat acttgaccg g 441

<210> 11563
<211> 358
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B8

<400> 11563

gtaccagtcc agaattccc ggctgacttc caccaaagcg atatccatca tctcatcgaa 60
agacgggaca cctttgcctc tatcaagtgg tatcagattt ccagggtgct cggtgagatt 120
ttacagtttt ctgtagttta gatcgagtct gttcttcata cctacagtcc acgaaaaagc 180
cacagagaaa aaataggggt agttcatcat atccgaacca atctgagcct ttgcataatc 240
tttttaggggt ttttgctttg ttgaatttgc ggttgcatcg tcgtgtcaag ttgctgggcc 300
tagagtctag tctttgagag ttctgagttc tgggcataag ttgtcacgcc gccgccgc 358

<210> 11564
<211> 364
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-B9

<400> 11564

ggtaccagtc cagaattccc gggctgacga tcaaacctac cacgtgcacg tgcaactcact 60
cacttgagca tttccataat caaccatatt ttaccaggat catgtgtcaa agatcctgcc 120
aacacatcat acgagcatga tgcataccgg tggaagatgc agctgcaagg gaagatctca 180
ccttctcgaa tttcacctta gcgaagacac gggaagtatc tctcgatgat caactcacag 240
atattcacca gtccgcatcc aatgatcaca ttgctgtgct agtgtgacac attcaacgat 300
atggttgggt aactacaata tcactttgca agtctggcta cgtgatatca attatocata 360

aggg

364

<210> 11565
<211> 430
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C1

<400> 11565

gggtcgacga cctatgtatg catgggcatg tgatgtgagt aaaaccagac ggagagggag 60
agggatatgg aatcagatga acaatggaga aacgacggag atggagggcg catcggcgat 120
gctcaccggt ggtgatgtgc tctgccgtgg ttgcatggat ggcattggga atacaagcga 180
tctcttggac gtcacatgat cgacgatgat gacgttgggt gccatggttg agatgttctt 240
gggcaagagc accatggata gatgggacag tgatggagac acgacgaatg tgtagacgg 300
ggaaagtgag ggatagagga gggattctgc cgatgatatg gagatttcac atacctctaa 360
ttagtacttg ccaaggttat atcaccgctc tactactatc aacttagtac taacgtgggt 420
ttgtaccctt 430

<210> 11566
<211> 465
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C12

<400> 11566

gtaccagtcc agaattcccg ggtcgacat gcaactgtgac gcttcagata ttacaaatac 60
aagttgccac agccaagga agagccgcat ggtgataacc ttctggagga ggaagaggac 120
gataaggaag aaagggaata tttagctaca ttgacaaaga agcaacttct attccttgag 180
gaagatgacg ctacatcgga agaggatgat aaccttatgg ataaaactga ggatgattgt 240
agtatggagt ttcttgagga gaagggattt ttcattagct ttgaagaaga cggaacactc 300
gattggtttt tctactctgc ttactgcgaa tgtgcttccc tgagtgacta tcaacgccta 360
gtcctaaaaa aattatggtg gtaccgagta cagcatgtgg agtgtctacc ctagctaccg 420
tcatagctat gatattgaac gagagtatct caagtactgc cagga 465

<210> 11567
 <211> 340
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C2

<400> 11567

tcactttggt gccattgaca tctttaatgg aaagaagctt gaggatatcg ttccttcac 60
 ccacaactgt gacgtccccc atgttgaccg ccaagattat cagctgattg acataactga 120
 tgatggatat gtcagccttc taactgagag tggcaacacg aaggatgacc tgaagcttcc 180
 cactgatgat gttctgcttg gccagatcaa gactggattt gctgatggca aggacctgat 240
 cctgtctgtg atgtccgcc tgggtgaaga acagatctgc gctgtgaacg aaatcggtgg 300
 tggcaagtaa gcagctgtgc gtggttcctt acctgcgata 340

<210> 11568
 <211> 379
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C4

<400> 11568

ccgggtcgac gagccaccct gtgctcctcc gatgacggat cccaggagcc agacaacacc 60
 tctgatgact actgctacca tgagggtgcc tactactacg tgacggctgc tgacgacttg 120
 gagtacttag gaggctccta tgcaggaggc cttgcctttc gatcgttggt gattttgtgc 180
 tagccttctt aaggcaaact tgtctaactt atgtctgtac tcagatattg ttgcttccgt 240
 tgacacttgt gtattcgagg ttatgtattc gagccctcga ggccccctggc ttgtaatata 300
 aagcttgat tattttaaaa gaaagaacat ttccaaacaa aaaagcagcc gctctacagg 360
 atccaagctt aggtacgcg 379

<210> 11569
 <211> 448
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-C7

<400> 11569

gtaccagtcc agaattcccg ggtcgacggt gacggagatg aggggcttta tgggcctggg 60
agcctccaca ggcgcgaggg tcacgttgag caccgtggat cggccgtcgt agtccacca 120
aacttgcatt gcattgccgg cgatgagagt caggttcttg aaatcgccag tgcgtcgtc 180
gtagtagcct gcaggttcgg ccacgacgga tgccaggcgg ttcacgtcaa cgccgacgtg 240
gttgctgctg atgtcccgaa actccgggtt gaggatgggt tcaagctcga cggcgaagac 300
gtggttgctc gcgttgccgt tgttctgggg gttgaagagg ccgaggaact ggctgggcga 360
cgccatggac aggttttttg tgggcgcgac gaagaaggcg aggccgttac cgcccaacgt 420
gaccaggtcg gtgacaatgg cgaacacg 448

<210> 11570

<211> 221

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-D11

<400> 11570

gtaccagtcg agaattcgcg ggtcgactga tggagaaagc atgaagagag gaacccttgt 60
agggaaaggt gaacaaagga aatttgccgt tatattctcg accatgcagt tggatgacgt 120
gaatccggcc acggtgttgg gttttccggt gtgcctccca cagcattagt ccgaagctta 180
cataagggaa agagcttcaa gtttgggtct ctgcagatgt t 221

<210> 11571

<211> 443

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-D4

<400> 11571

gggtcgagcc agatccacca acgcagcgca cgggtcctc ttatttcggc tacgtcacat 60
caccgatttc acacgcaatg gatgggcaaa gcagaaagca caggattttg atggtgtccg 120
acttcttctt cccaaacttt ggtggtgtgg aaagccacat ctattatcta tcacagtgcc 180
tccttaagct tggccataag gttgttgtca tgacacatgc atatggaaaa cgttctggag 240

tacgatatgt tactggtggc ttgaaggttt attatgtgcc ctggaggcca ttcctgatgc 300
agaatacact acctagatta ttcattgacat ttccaatcat aaggacaatt ccttattcct 360
gagatgatat ctgtttgtgca tggacatcag gccttttcaa cactgtgcca cgaagcggtg 420
atgcacgcct aggacgaagg ggt 443

<210> 11572
<211> 414
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-023-Q1-E1-D5
<400> 11572

attcgcggtt cgactttctac tatgaagagg aatattccca tcttcagcaa cctccctctt 60
ggtatggttag gccactttgt accctctgcc tgacagagtg tgatatggtg tttggccgag 120
ttatttttgg agaacgaggg gataacatac gccctttgaa gctctctctc tctacagggg 180
ctctttagt tttgcaaggg agaagtgtg atgtagccaa gcgagctatt cctgctacac 240
gtaagcagcg aatccttcta acttttggga agtctgtggc aagaaaagtt gcaccatctg 300
aaagtgttc acggcctact gccccgttaa cacctccttc catgccttg ggtccaccat 360
caaggccagc taatgtaagg ccacactctc caagtccgca gcacttccgg tata 414

<210> 11573
<211> 394
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-023-Q1-E1-D7
<400> 11573

taccagtcca gaattcccgg gtcgactccc ctagggtttc tggaatattg gggatatgtat 60
agtgttaaga ggcggtccgg ggggaatccg aggtgggcac aaccaccag ggcgagcttg 120
ggcctcctgg tgcgccttgg tgggttgtgc tcccctcgga gcacccccag gtgattcttt 180
ggcccattgg ttgtcgtctg gtccaagaaa attctccaga aagtttcgct gcgtttggac 240
cccgtttggg aatgatttcg tgcgatgtct aaagacatgc acaaaacagc aactggcact 300
tggcactatg gcaataagtt agtaccataa cctgctataa acatgactac acaatgatta 360

taatacatcg aagattgata gtatagcagc atgg

394

<210> 11574

<211> 461

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-023-Q1-E1-D9

<400> 11574

ggtaccagtc cagaattccc gggtcgacag gaacagggca cacagagatg gccatgatag 60
agattatccg acggatagca gagtgcattg ttcagggtccc gagggtttca gcagagccat 120
cagagcagca gtgattcctc ccaacttcag gttggcgact ggagtcagca agttcactgg 180
tgagtccaag cctgacactt ggtagagga ctaccgagtg gttgtgtaga ttgggtgggtg 240
caatgatgaa gtggccatga agcaccttc tctgatgttg gagggtcgg ccagagcgtg 300
gttgaatcag ttagcaccg gcagtattta tagttgggag gaacttgccc gagggtntgt 360
tagaacattt gaaggtacat gcaaacgact agcagggcta acaaagctac aatcttgtgt 420
gcagaagccg aatgaaacct tgaaggatta tatccagaga t 461

<210> 11575

<211> 433

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-E1

<400> 11575

gggtcgacac acacttcaat gatgcaaca tgtatgctga tgaaggggac gagggtgttg 60
aaaggtgtgt tggtggata atgaagctct tcctggagg gccaaagcgt cgcaccagca 120
aactccacta gcgaaaatga agcttttagta tacagaatgt ctcttcattt acatatattt 180
tttgcccggt ttggtcata gcacgtgag aagttgtata ttggagccat ttgatgtaac 240
cattcttttt tctttctaca gaagatgacg aaaatgttgg agctatacaa cgttgtattg 300
gacagtaaac agaatagcct ccaagaatca tttctccca tcttatattt tgctgctatg 360
ggttgggggg ggatatgtaa aagctgttat tcggtgattg ttgaacgggt gtaccaaag 420
catttttctt ttc 433

<210> 11576
 <211> 461
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-023-Q1-E1-E10

 <400> 11576

```

gtaccagtcc agaattcncg ggtcgacaac atgacaaaat ttctcaccac catctagttt   60
tgctaaaatg agtttgtttg tcttacctta tatatatgtg aagaaaattg acggcagcaa  120
atttctcctg aaaataagtt caaataaaaa catgggagaa ggtcacatat gtgtaccagg  180
aaaatgtttg cgcaaaaatg cagaagactt tactatccat gagtttgtgt acatgctcct  240
tttttgtggc tgetgcaggc tgcaagacct gtogtcgtca tccccactta gcccatgtca  300
tgaagcttcg cccccctact actgctacac gtaagtgtc gtctgcaatt tggcacgaag  360
ttgaacaact ttagctagag ttcagataac tgaatggcag aggttgctct agaactacag  420
tagtatactt cagagttcag agtgcagata attaaatgtt c                        461
  
```

<210> 11577
 <211> 457
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-023-Q1-E1-E11

 <400> 11577

```

ggtaccgatc cagaattccc ggtcgacat cgagccggat gcgcatgtca agcaggcgat   60
gaatgagatc aatgcagctg caaggatgag ggtggctgca aacgagaagg cggaggctga  120
gaagattgtc cagatcaagc gtgccgaggg tgaagcagag gccaagtacc tgtctggcct  180
cggtatcgcc cgccagcgcc aggccattgt ggatggcctg agggacagcg tcctgggctt  240
ctcagtcaac gtgcctggca ccaactgcaa ggatgtgatg gacatgggtg tgatcaccca  300
gtactttgat actatgaaag agatcggcgc atcctccaag tcctcgggcg tgttcatccc  360
ccatggccct ggtgcggtgc gcgacatgc cacgcagatt cgcgatggtc ttcttcaagg  420
gcagtctgcc tctgaaaaca agcagttggc tttgccg                        457
  
```

<210> 11578
 <211> 429
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-023-Q1-E1-E12

 <400> 11578

 cgggtcgacg cttgcgccgg aaagtttggt caccatggcg atcgcgctgg cgggctgcgc 60
 ctggccttcg gtgccctcta agctctacgc tcctttcacc ttgcgttgcc tatggtgtgc 120
 ccctgccatg tcagaaaaaa ccttgctggg tcatggtgaa tgggtgtgaaa tggaatagaa 180
 agacaattct tgtgcttgca cagagtggaa gcgaatgtga tcgggggggtc accgtcaaga 240
 gagtgcttcc ttggctcggt agcaaaggaa aatggctact agtatactac tcttgcagtc 300
 acaaggttcg tatatgtgtg ttctgtgagc taaaaggatc tatttctagc atctaaagaa 360
 cttatggaca ttttagtata tatctgatga actagcactc taggatggat cagtttcgta 420
 ctgagacat 429

<210> 11579
 <211> 421
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-023-Q1-E1-E4

 <400> 11579

 ggggtcgacac acggcccgca gaggtgttct tcctgcggtt tgaccatata tttgagatgt 60
 ttctgacaaa gcggtctgat tttacaatcg tccacctttt tacactacat atgagcttcg 120
 tcatgaagag agaagaagtc tcgcaaactt gtgtggcgga tccgtactac atgcacgagt 180
 ctttcttgag tctcggtgac tttgagcgtg aaactgctag ggactacctc caaaacttca 240
 tggtagacaa taaggaccag gaaattggcc tcctgcctta tcatccaaag taagtcaatt 300
 ccggacaacc ctttcgtaca tttcaatcat tccttctcgc tcatatggag aataatttga 360
 ggtgtctttt ccccgacgca acgggcgcgc cgtccttata gttctttaac cgcgagtcctc 420
 c 421

<210> 11580

<211> 460
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-E8

<400> 11580

gtaccagtcc agaattcccg ggtcgactgc caccaaagcg atatctatca tctcatcgaa 60
agacgggaca cctttgcctc tatcaagtgg tatcagattt ccagggttgct cggtgagatt 120
ttacagtttt tCGtacttta gatcgagtct gttcttcata cctacagtcc acgaaaaagc 180
cacaaaaaat tagggttagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt 240
ttaggttttt gctttgttga atttgcgggt gcacgctcgt gtctagttgc tggctcttaga 300
gtctagtctt ttagagtttc gagttctggc cataagttgt cagcgccgcg ccgcaccatc 360
atcatcgccc ctgccatcta ccaccgccg ttatccgccca ccgctttgaa tccgctgtca 420
tataccacca ccgctgccat ctactaccat atatccacca 460

<210> 11581
<211> 454
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-E9

<400> 11581

gtaccaatcc agaattcccg ggtcgaccat ggcgtcttcc aactccgggg gcaccccat 60
caaggccgaa caggattcgg atggctcggc ccagagcaca gctgacatga ctgcttttgt 120
gcaaaatctt ctagttcaga tgcaaaccag gttccaaacc atgtcagaga acatcatcac 180
gaagatagat gaaatgggtg caagaattga tgaattggag ctgagcatca atgacctcaa 240
ggctgaaatg ggcagcgatg gtatgacccc tactaaagtg aaggacgaag aatcaaagcc 300
agcagacagc tcttcctgag tgaagcagaa gtagcagaag caaggcgtat tagtcttggt 360
tccatgtcga tatcatcagc cattcatcac taacttactg catgttatga gatgttattt 420
gcactgttat atgcatatga gatatacagt acct 454

<210> 11582
<211> 426
<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F1

<400> 11582

```
gggtcgactt ttccactatc aacccccaaaa aacccaactc tgccttacgt aaagttgcca   60
gagtacgatt aacctctgga tttgaaatca ctgcttatat acctggtatt ggccataatt  120
tacaagaaca ttctgtagta ttagtaagag gaggaagggg taaggattta cccggtgtga  180
gatatcgcat tattcgagga accctagatg ctgtcgcagt aaagaatcgt caacaagggc  240
gttctaaata tgggggtcaaa aagccaaaaa aataagtgat tttagccctt ataaaaagaa  300
aacggattct tgaacctctt tcacgctcat gtcacgtcga ggtactgcag aaaaaagaac  360
tgcaaaatcc gatccaattt ttcgtaatcg attagttaac atgggtggta accgtattat  420
gaaaga                                           426
```

<210> 11583

<211> 466

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F10

<400> 11583

```
gtaccagtcc agaattcgcg ggtcgacagg atctacaagg attttagcat gtcagttggt   60
gtgaagaaca ttcgtgaata tgaagaaaag caactgaaag atgctcaagc actgcaggag  120
aggaagctaa gtctgagcaa tcaattatcg aaactgaaat accagctgga atatgaacaa  180
aagagagata tgcattgctc gattgcaaag ttaaacaaca cacatgagac cctagagaag  240
gagctgaagg gcttgacagga gagagaaact cgtgctaagg ctgatgctga acatatttca  300
aatcagatgg aagagctgaa ggctgaggct gaagactgga agttgaagtc agatgaatgt  360
gagacagcaa ttgaggaact aaagaaacag aatgatagtg ttgctgctgc attggcaaag  420
ctggatcgcc aagtgaagtt aaaggaagga cagatagttc aactta                       466
```

<210> 11584

<211> 459

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F11

<400> 11584

ggtagcgatc cagaattccc gggtagacaa gacgacagaa gggggcggtg gtgttcgata 60
gttttcgatt tgatagagag agagctagac gtagagcggg ggagaagagg aggcgattcc 120
gtcccccttc cccctgctgg agcttaattt tctctttgat tcacgggtgc catggttcca 180
gggtgttggt gtggaaagct cttgtagacg cagctatttg ttcagcttcg cgggggactt 240
cttggtgata atggagggtt tgacaacgct ctattcaagt tatatatgaa tcattgaatc 300
attgaagagg aaattatcat gtgcttgaag aaggaatggt gtcagcccc attgttatac 360
taaactctct gatggcttta gtctgttctt ctctttactg ttgcactgca gtttcccagt 420
gtcgtagttc tgtatttagg ccataattaa tcttttttg 459

<210> 11585

<211> 468

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F12

<400> 11585

gtaccagtcc agaattcccg ggtcgaccta tcataggcac ctctgttca atgagtggat 60
gacatatgtc ccaacgatga gccaacaggt gtttcctcta gccaatgatg attttacacg 120
tggaaactcc tcattggtcg ggggtgttaa tgagttatcg gatccaaaac ccgacctgat 180
agcttaacgg cgttccgttg cgggtggatgc cacatgtcgg tcacccttga cgaaagcact 240
tctgtgacgc gcgatttatc gtcatggaag tggacacttc cgtgatgata attttggtaa 300
tgtcatggaa cacttctacg acagcacagg tatgactacc ttgactatgt cataaatttg 360
tcatggatgt acatgcatga caaaaaacgc gacctactgt gacaaacacg tatcatcacg 420
gaagtgtatt ttttttgtaa tgtatgatgg actcatatgg aataactt 468

<210> 11586

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F2

<400> 11586

cgggtcgacg tatectgaca gacttttcgc ctcaagccgc ttcacgactt cccggcgacc 60
acaatcacia catcaacctt gtttcctcta gatcaacaat acctttcgaa caacctagct 120
catgatacca cttgttagaa taaatccgag acgctccgtc gatctattaa ggaccaatca 180
atcacacgag cagcacaccg agatttgta acgagggttca ccgatatggc tacatccccg 240
gggcctgact atggacgctc ctctcgtgac accgtcacia ttccacaccc ggtcgccctg 300
gacaccggca catgccgcgc gtttccccgc cggtccgggtg ctattatggt ggcataggct 360
acatcgtgtg tctacctccg ctatatatga aagggctagg atacaagtgt cctattagga 420
cataa 425

<210> 11587

<211> 430

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F3

<400> 11587

gggtccgagaa taccggggtc gacagacgac agaaggggct ccaattcaaa tggctgataa 60
acaggaaaca tagttgaatg tacagacatt gtatgagaga cagatgcaat agatagtgtg 120
gaaaaagatg gcatgaaata gttgacgtgt atattgttta actaaaacgg atagcatgac 180
ataatttcac atatatgatg tctatctaaa ctggatagca tagcataaca taattcacag 240
atatgatgaa taactaaaca agatcacatg acataattca cctacatggt atctaagtaa 300
tcaggatcgc atcatttaat tcacatatgt gatttatatg ctaaacagag ggcattagat 360
atgatgtctg aactaagaac atgggtgttta atattgtgta tatgatgtct aatctagcct 420
cggctttgtc 430

<210> 11588

<211> 455

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F5

<400> 11588

gtaccgatcc agaattcccg ggtcgacttt cactgtaaat atcaaactcc tcatagactt 60
 atagatatct gtacactcac aaacgcatta gtcccttaac ctataagtct tcaatacacc 120
 aaaatcacta agggggcacta gatgcactta caagaataat ttgaggtgtc ttttccccgc 180
 agcaacgggc gcaccgtcct tatcgttctt taccgcgag tctcccacgc cgtgtatttc 240
 gacccttcca gagactacga gaaaaaggac tacaccaca taatgaatat tctagatgat 300
 gctctccaag gcttcagcat tagaggtggc cacatgcaga tcaagaaaca aaggaacaag 360
 aagatgggtt tcgcacataa aactaacttc tctgcatcc atgttccaga accaaacaag 420
 aaagatggat tctacatcat ccatctcatg attga 455

<210> 11589
 <211> 313
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-023-Q1-E1-F6
 <400> 11589

aattccccggg tcgactccca gagtaaagga ctccgaccag ctcacctaag catcttcgac 60
 aacttacgct cgatcatgta gtatcagatt tgcaagttgc tcaactgagat ttacagtat 120
 tgctgacatg aaatggagac tgttcttcat gcatacatc caatcatctg tccatatgga 180
 atatgacggg taatgcagca tagccgaatc ggtcggagac ctagcatgat ctttggaggg 240
 ttattgcttt gctcaatttg tggatgcac gttgtgtcat gttgcttgtc ataccgtcta 300
 gtctgtgtaa gtt 313

<210> 11590
 <211> 457
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-023-Q1-E1-F7
 <400> 11590

gtaccgagtc cagaattccc gggtcgacgt tccgtcatca agtgaaaatg cagctgtttt 60
 cgtgccaaagt gttgatgtac ttgcagctga agtcattccg agacctgctg cgactacacc 120
 tgctgatgtg cccacaagtt cgcttactag tatccctgtg gatctgcccg tagctgcaac 180

cacacctgtg gatgcaccgc ttgacatcga cagtcttaca gaagagaaac tgctgcacga 240
gctggaggaa atgggcttta agcaggttga tctgaacaag gagatactga ggcagaataa 300
gtacaacctg gagcaatcgg tggatgatct gtgtggtgtc aatgaatggg gacctctgct 360
ggcgggactg aaccaaattg gatttgatga caggagagacc aacaaggagc tgcttgccag 420
aatggagga aacatcaaac gacctgttat ggacctc 457

<210> 11591
<211> 465
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-F9

<400> 11591

gtaccgatcc agaattcgcg ggtcgacggg aactttggga gccggagaca ctggtcgaac 60
atataaagtt tgatcatggt tatacctcga agagtccagc aattgtcaat ctacttgaga 120
tcatgacaga atttactccg gagcaacaac atgcattctg ccagtttgtg actggtgctc 180
ctcggcttcc acctggtggc ttagcctccc taaatcctaa gctgactatc gttaggaagc 240
actcctcgac tgcggcgaat acttcaaattg cagctggagc agcagagtct gcagatgatg 300
atctgcctag tgtcatgact tgtgccaact atcttaaact tccgccatac tcgacaaagg 360
aggttatgca caagaagctg ctttatgcta tcaacgaagg ccaaggggtcg tttgatcttt 420
catagtgggt tcaaaaactaa catacagatg gttggtgcac atgta 465

<210> 11592
<211> 435
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-G10

<400> 11592

attcccgggt cgactactaa aggaaacagt gctactctac cgttctttta ttacaaacat 60
taaacatata gtagtattat ataccaacta caaattatct gaataaagaa aacataaatt 120
tgaataaagc attcatgaaa accaagaatt gaaagaaatc gaaaatttga aaaggtatgt 180
atcaattgaa aaaaagttca caaaaaggga aaaggtttgt gaatttggaa aaagttcatc 240

aaaatttcaa aaaaatctca ttgaatttgg aaaaagtttg tcaaatttga aaaatatttg 300
aaagggttca ttgaattttt tcaaaatcat acaataaaaa gcattaaatt ttaaaataag 360
ttacagaatt tggggaaaaa tcatcaattt tgaaaaaaag ttcacaattt tgaaaaaaac 420
agtttatcaa ttttg 435

<210> 11593
<211> 463
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-023-Q1-E1-G11
<400> 11593

gtaccgatcc agaattcgcg ggtcgactga aactaattac gttcagggca gcgaccaaca 60
caatttccta aaagctgacc tagagaaggt gaaccgaagt agaacccecat ttgttgtgtt 120
tcagggccac cggcccatgt atacctcgag caacgaagcc agggattttg ccatgagaca 180
gcagatgac cagcatcttg aactgctctt ggtgatgtac aatgtgaccc ttgccctgtg 240
gggacatgtc cataggtatg agaggttctg cccacgaag aattcacagt gtctgaacac 300
atcatcaagc ttcatatacc ctgggtgccc tgttcatgtt gtgatcgga tggcggacaa 360
gactggcaac cgatctggca accaaggcgt gatcatccag atgttcccat ctttccacag 420
cctngatct ccatgtaccg tgggtggtgag ttcgggtaca caa 463

<210> 11594
<211> 418
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-023-Q1-E1-G3
<400> 11594

gggtcgacga ttgggacgaa tgggtggcatg ggaacaagac tttgtctcac cacttgaacg 60
actggtggaa cggccgctag ccacctcaaa ctccatccat ctggatcgat ccatgcatgt 120
accaccact atactactac ctagttacag caattccttt tcatcttgc caaccactta 180
tgtactatta gctagctgcc gctgggtgtct ttttagttct atatttggtg tactgaacca 240
gtcgtaagag agggagtttt tagttccatc tacctagttt ttttctgcgt tggagcaatt 300

caggtgtact acacccgaga gtagaaaaca ttttgttatt ttttggtgaa acttttgcaa 360
 tacctaaaac atttgttcat gtttgatgtc acaaaatata tagtcaaaat ttgcgtgc 418

<210> 11595
 <211> 415
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-G5

<400> 11595

aactcgcggg tcgacaaaac ggcgtatctt catccggatg catgaacttg ctccttgcac 60
 tcgccattcc taaaagagta gaaagtggag aggggtcaga aatgagaaga gagaaacttt 120
 ctagggctta agcttagtgg tcgtgtccta cagtcaacgt gtgctctgat accaactttg 180
 tagcgaccag acctcaaatg gcctgtgctg ctgtgcacca gtgtcatccc tggatcagta 240
 atgctgacac gcacagtaca aatggaggat ttataacaga gtagcaatca cacacttatt 300
 acatccaata tctccaaaga gattaagtat gataagcatg gcttaaggcc atctaataac 360
 gataacagcc gaagacttgg gagataagtg aatccatcaa ctccagcggc atcac 415

<210> 11596
 <211> 430
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-023-Q1-E1-G6

<400> 11596

attcncgggt cgactacaag acgcatgtgg tggcttcac gatctcaaaa tgatataccg 60
 gttcaatctc tcgaagatgc ttataagaat atagatgcaa gggcttatag ggacgagtgt 120
 atgtatgcat gtacatgagc gtgtgagtct tagaaatctt tggaagttag ataggcgggtg 180
 cgctgggtggc gtacatgaat taccaatcca aatatacttg cacgaggctc tgccgtacca 240
 ccacaactgc ttcaggtcaa aagggtggccg gtgccgggtc acatcaccgg caccagatcc 300
 ctccaaaaca ataaaatcta gtgttgtaag gtatcatttc atctgttcca gcacgagcgg 360
 cgggtcagc atttccatct gagtagtcca tccgtcttgg aaaacttgtc gtaacctttg 420

ttaagcaatc

430

<210> 11597
<211> 388
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-G7

<400> 11597

aattcgcggg togactgacc caagttagtt tcaatcgatt tgcttcaagt gggaatagag 60
ggacgacata gogatgtatg ggttgatctt gagagtcogt ccatgcatga tctatagtgc 120
tgctcacatg ggttcacttc catgcatgc atgcagaatc tcatgagcaa catttagttc 180
attaagcact ggtcattagc atttaattaa tcaaagaaaa accagccgtc acagccatta 240
tctgaacggc aacacaatgt gttttatgca atcattagtgc gctatatgtg caatgaaaaa 300
gaaaaacctt taaaacttgc acacaatttg cattgaattt gcactttctg aaatatgcag 360
agaataatat aataatgcat ctgtcgca 388

<210> 11598
<211> 324
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-G9

<400> 11598

gggtcgactt ccatcaaaga gatattcatc atctcatcga aagacgggac acctttgcct 60
ctatcagaat tagtattatc catagcgtga agtagtatta ctagttgaaa agctagtttt 120
atcaactaaa caaatcttg gagacggtgc tacaaaacta atcattgact gcattagcac 180
ttcggcttac agaagcaaca aataaaaaaa gaaaattgaa agaaaaaaag cgggcgctct 240
agaggatcta acttacgtat gcgtgcatgc gacatcaaag ctcttctaaa gagtgtcacc 300
tattttcatt tcaggggctg tcgt 324

<210> 11599
<211> 429
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H2

<400> 11599

gggtcgagcc cttctacatg cgtgacaaga tcttgggcag cgctggggac cggcaagtcg 60
cgagttctta cctcgaaagc gtcattctgg caaaccaaga taaggataac ttcctcgtgc 120
cttactttcc cgagtaagtc caccctcaa ccggcccgtg acatatgaat tcttacattt 180
cgatcgtttc tcttttaaca ttccgtgttt tctgcagtga cacacgttgc acgctcatcc 240
tcctaagccc caaatattcc atggccacgt atttcgaccc ggaccgtcag tcgaacgtag 300
actacacaaa tgtcaagaag gttcttgatg atgttctccc cggctacgcc aaatctggag 360
gcaccttcac caggcctatt cgtaagtacg gcaagcacgt gttctccac aatacgatgt 420
tctgctgcg 429

<210> 11600

<211> 420

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H5

<400> 11600

aattcccggy tcgacagtgc aaccggaagg ccgctggagc cccgcaagaa cgccaccaag 60
tttgtcagcc aatgcggggc cattgttaga gacaacgtct cgatcgccgt ccaggagtgg 120
aatgagccaa agaaggcacg aattgatggt ttcacttttg tcgataagag aacaaaaaaaa 180
gattgcttca agaagcttat ggaacatttc gttctacctc cggaatacaa caaattcgat 240
gaggagggtg acaagattga ggaaaacaag gagaggagga cgctagtcaa acagttcgct 300
cttcataaga tggccgacgc attccggaaa ttcaagcaaa atctagccca tgactttgtc 360
aagcagaaca agactccgga tttcaaagga caatatgaga aactgaaaca tgattggcca 420

<210> 11601

<211> 373

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H6

<400> 11601

attccccgggt cgacggggcca tgcaacgcct gccactacac cgacaagaat gataacaact 60
 actgcagcag cgaagctggc taccgtctgc ctttgaaatg tgtacacgta cacaatggta 120
 caaaccaaga taacacaaca caggatagaa acatggtggc tgaagcatcg acgccaactg 180
 acccaaagca ttatgttact gacaggactt gtgtagcatt atacgatgca tagaagctat 240
 caactcatgg gttccacgtc ctcatggctg gaacgtcgct tgtaagtggg ccgttcgtgt 300
 attaccggtg acggcaagca agtctaattg aaggggtttc aagaatcgcg acaaacgctc 360
 ctacgtttta tca 373

<210> 11602
 <211> 447
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-023-Q1-E1-H7

<400> 11602

gtaccgagtc cagaattccc gggtcgactt ccaccaaaga gatattccatc atctcatcga 60
 aagacgggac acctttgcct ctatcaagtg gtatcagatt tccagggttg tcatgagat 120
 ttacagttt tcgtagttta gaccgagtct tttcttcata cctatagtcc acgaaaaagc 180
 caaatttttt ttagggtttag ttcatcttat ccgaaccaat ctgagctttt gcataatctt 240
 ttctgtattt gctttgttga atttgcggtt gcatcatcgt gtcaagttgc tggtcctagc 300
 gtctagtact ttagagtttc gagttctggt cacaagttgt caccgcgcgc ctgcaccatc 360
 gtcatcaccg ctgccatata ccaccatcgt catcaccgct gccatatacc accgtcgtca 420
 tcaacgctgg catataacat catcatc 447

<210> 11603
 <211> 438
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-023-Q1-E1-H9

<400> 11603

gggtcgacag tggctattaa ttgagtgggt ggtgggcttt gaatttcttt gtcgtctgca 60
 ttccaactgt cctggccgca gtccggccag ggctctcctg ataacgagag atactttagc 120

gaacttaaga tgtcaccgaa aggtgagcgt tgaaagatat ccgctgcggt gaactccatg 180
atcggtgccc aatcggattc gatcagaagg ggcgccggaa gtttgagatt cgggaaagga 240
ttccggggcc ccggattcac aaccttcatt agggacangg tcatggttct gctccattgc 300
cgtanagggt gcagccctcg aggcggtgtc tagccatccg tcctcgatct gcgcagccgt 360
ctccaaattg aagatcggag cgggttcgag tacggcctcc aggggtactgt ccggctgcag 420
aactaaatca tgctcgcc 438

<210> 11604
<211> 461
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-A1

<400> 11604

acgcctgccc gtaccggtcc gaaatatccg ggtcgacata gctaaaactc taggtgggta 60
aaccgaatca cacagaacaa gggagtcctt gctctgatac caattgaaag tgctagtatt 120
cgactaaggg ggggtgaata ggcgattttt atgaaagtct tcaaaacatg agagttttgt 180
agaaaaacaa tagaaataaa cctattgaca tgcagcggaa ggtagactac actagacaag 240
ccatagccaa gtactcaatg aactgaaaac acgaagacta ttagcagcta ggtagtatgg 300
atcaggatgg aagatagtgt gaagccaaac tacattagtc atcacacagt gaagtcaaac 360
agataatgca agcaggcaat gacttcacaa ggacaaactg taagtaaaga gaagtaagag 420
gtagaaccag ttgcttggtg aggacagtga ttttgttga c 461

<210> 11605
<211> 440
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-024-Q1-E1-B6

<400> 11605

taccggacca acattcccgg gtccacacgt ggcacggcac agcagaggcc cattccgggtg 60
aagatgtcgg gcctgtcaaa ataagcgggg cagcccatta tcggcctact tgagtcaggc 120
ccatttacag gaccgcccac acaagttaca cagaactgga ccatcaaagg cccattcgag 180

atgtcgacaa tttcgagccc atcattagtt taagcccgtt aacgaaccgc tacgttttgt 240
 ggcccaattg cggcccgcgc ttcttttggc ctgttagcag cccatcgtca gttccagccc 300
 gttaatggcc cataacgtcg tgcggccttt tctcggaacca ttctgcagtt gggccaattc 360
 tagcccgtg tgaccttagg cctgtcctcg gaccattcgg tacatggggc aactcttgac 420
 ccattttgtc gcttgacctg 440

<210> 11606
 <211> 434
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-024-Q1-E1-B8
 <400> 11606

taccggaccg acattcccgg gtccacgcgc gcctttgcac gtaagctttg agtgtttgtg 60
 ctgcctgcag tgtgcttgat acaatcgtca cgctcaacgc cggcggcatg gtagtcatac 120
 gtcttctttc cgtcctttct ggaactgaat atgctgctgc ttactcccag cccatgtcat 180
 cgtgttcgtg ccaaagetgc tacgcatgcc aactgtgget gcaacgtgcc tgactgtgcc 240
 tgcacagacc ggggacagct tgccatccta taggagacac ctttgtgcgc actgctcatc 300
 ggcttacacg atccacagtt gactgtactg tccatggacc gactcggtea gctctcgttg 360
 tgccgaaacc gctctcatca gctaccgaat cgattgatca tacacttttt accagcttcc 420
 tggctgaatg ccta 434

<210> 11607
 <211> 454
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-024-Q1-E1-C8
 <400> 11607

ggtcacgga cacgcagtat gaaaactcac tcaagggcaa ggagaaagaa gtagacgtgg 60
 ttcaccttac gcatctcacc agcctgcagt ccatttacca tataaggacc gggttcgcgc 120
 agtacgcctc caagccgtac acttccatgt ggcaactgcg gatcatgtgg cccgtgtcat 180
 ggctgtccat ggtactgacg tgggcatacg gttcttggtt cacagttgag aggaattcca 240

tgaagaagct ccggatgcag tcatgggcta taccaggata cactttccat tatggactga 300
acaaggataa ggaggcaatc aatgacctga ttgagaaggc aatatctgaa gctggtaaga 360
aaggagctaa agttgttagc cttggacttc tgaatcaggc gcatagcctc aatgggagtg 420
gagaacttta tctgcagaaa tacccaaagt gggg 454

<210> 11608
<211> 454
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-024-Q1-E1-E5
<400> 11608

attcccgggt ccacgagtgc gaggccaccc tcaacgagca gatcaatgtg gagtacaatg 60
cctcgtacgc gtatcactcc ctctttgcat acttcgaccg cgacaacgtt gctctcaagg 120
gatttgccaa gttcttcaag gagtcaagcg atgaggagag aggacacgcc gagaagctca 180
tgaggtacca gaacaaacgt ggagggaggg tgaggctcca gtcaatcgtc acacccttaa 240
cagagttcga ccacctgag aaaggcgatg cctgtatgc aatggaattg gctctagctc 300
ttgaaaagct ggtgaatgag aaactgcaca acctgcacag tgtagctaca aggtgcaatg 360
atcctcagct gaccgacttt gttgagagtg aattccttca ggagcagggt gacgccatca 420
agaagatctc tgagtatgtg tcgcagctga gaag 454

<210> 11609
<211> 334
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-024-Q1-E1-E8
<400> 11609

taccggacca aaattcccgg gtgcacaacc tctacattat cacacatcca ggtgaaccaa 60
gccccaaagc agaggcgccg tacataccgt gctcacggac gcatcaatcc ttacatgtcc 120
aaccctgcc acattgagct gatcttgtca gagaaggaag agcctgtgaa gaaggaggct 180
gataacgtcg tcgcaccaag gaaagctatc taagctaccg gaatggatgc attcgtccaa 240

cagtcttagt tgtagttctt ctcaagtacc tttgttggca gtgtttgttg cctccttgat 300
 gtnnttgta ccaacattga gtaaggattt gtta 334

<210> 11610
 <211> 478
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-024-Q1-E1-G5
 <400> 11610

cctgccggtta ccggacaaa attcccgggt cgaccccttg aaggagccac ctatcgtcac 60
 tgccaacact gtgctatcca ttcttgctgt tgattatccc gtggacaagg tctcttgcta 120
 tgtatctgat gacggagctt caatgctgac ttttgatgca ttggctgaga cttcagagtt 180
 tgctaggaaa tgggtaccat ttgtgaagaa gtatgacatt gaaccagag ctctgagtt 240
 ttacttttgc cagaaaattg attacctgaa agacaaagtc cagccttcac ttgttaaaga 300
 ccgccgggccc atgaagagag aatatgaaga atttaaaatt aggataaatg ccctagtttc 360
 taaggcattg aaagtccccg aggaagggtg gattatgcaa gatggcacac catggccagg 420
 aaacaatacc agggatcatc ctggaatgat tcaggttttc cttgggtcaca gtgggtggc 478

<210> 11611
 <211> 312
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-024-Q1-E1-G6
 <400> 11611

taccggatcg taattcccgg ggccacattg agcctgatat ggatgtcaaa agggcaatga 60
 atgagatcaa tgcagcttcc aggatgatgt cggcaacgat ggacggcaca gaggcccaag 120
 tgattctcaa gattagagaa ccacagggca aaaccactc aaagtaactg actggcgtgg 180
 acattgcact gtagcgtaca ggctaccgtg aatggtctga gacacaggtg cttacgttct 240
 cggcaaactg aactggcact acagctaaag acatcaagga catcggttctg gtcagccatg 300
 tattttcgaca cc 312

<210> 11612

<211> 468
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-024-Q1-E1-H5

<400> 11612

taccggacca aaattcccgg gtcgacgacc tcaacgggac caacaccact gctaactcaa 60
 tgatggatat acattcactt atcatgtccc tcaatttcac ccaaatecgag ataaaaactg 120
 ccaactttgc caactcatgg ggagatgggg tgctagtgat ggtctctggt cttgtacaga 180
 ccaaagagta cagcaaccaa aggaaattta tccagatggt tttccttgcg cctcaggaga 240
 aagggttactt tgtgctcaat gattatttcc actttgttga ccaagaacaa gtgcaacctg 300
 cacaggtgag agctcaggaa gcctttgaga ccaacatggc atccaacaca gtccaaacaa 360
 gtgcagagta cattcatgaa gaaagtcaaa caatgcaagc tgttccagta acatctgaag 420
 aaaatgatgc tgttgactgt tacacttact ctgagccanc acagcaag 468

<210> 11613
 <211> 365
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-024-Q1-E1-H8

<400> 11613

tccacgacgg caaaccacgc acggcctgcg tcacgtacag ctggcacagg cacaggacat 60
 cacagggttg tccgagcatc gatgctggga cgacttgggc ggaacagtta tggctgtccg 120
 tggacctgtt caaggcgcaa aagcaaagt tggatcagc gtcggcgagg agcatttctc 180
 tctctctcca gtctgagctg tggtcacagc tccgtgacaa aaggatatac acaggtagca 240
 cagtatcagt gtaagcatcc ctgctcaatc aagtaaagct cagtttactc gtgacaattc 300
 ttttatgtc ggtaccggtc aatcagcggc agcccaacac gatatatgct tacgtacgcg 360
 tgcac 365

<210> 11614
 <211> 456
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-A1

<400> 11614

tctagaattc acgggtcgac agagaaacac gagcttctgg tcaattacat tttagtactc 60
acactttttg ctgatgactt cagatctgaa cctacggata tatgtgtgga cctgaaaatg 120
aaccgccaga tgcttaaacc atattatgac cagctgggat gcaagtcggt gtcaacaggt 180
gcttttaaac cattttttat gacgcttcca gcacccctca agttcccaca acaagtcaca 240
aggagaaggc ggcgaaaata accatctcag tattggtttc catttgatat ggttgtgata 300
ggaaaggtat gcattgccac cgtcgaaaga acctatgtgc cctcagctca gtttcaccaa 360
tgtagtggag aaaatgatta ccgtgggtgt tccgtttttg ttttctattg tcgcttggga 420
attgctacaa gagaggaacc atattacgga tatata 456

<210> 11615

<211> 453

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-025-Q1-E1-A10

<400> 11615

acgccggcag gttccggtgt agaattcccg ggtagacaga cgacacaagg ggggtgttga 60
tcctactgct gctgtgaacc gacttcgcag ccagtcaaga ggccgtaagc gtgagaggtc 120
actgagcaga gctgatggtg atgatgctat ggaagttgat ggccagcact ctgacaagaa 180
gctgcgtatg aggtcgaggt ctaggtccaa atcacgacca attgaagagg ttgtaccagg 240
tgacgggatc cgggatgttg ctcaaaagaa gaaggccatc aagaaatcga gggactctgt 300
caagaacagg aacaaggagg ctgccgtgg agaggcggat cgcgtcatcc ccaccttgaa 360
accgaagcat ctcttctctg gaaaacgagg aattggaaag acccagatgc gataaaccag 420
tcaatgtgga cgttgctgct tgcaatcact cga 453

<210> 11616

<211> 391

<212> DNA

<213> *Triticum aestivum*

<223> unsure at all n locations

<223> Clone ID: LIB31-025-Q1-E1-A12

<400> 11616

attcgcggga cgacagacac taccaagcag tgggacacga tgtctcagca gccagatt 60
tgagtgtttt acctctctag attatatttg caagcgccga tttctttttg gatgcctgca 120
aatgccgatg aaatcatcaa tttcttcgct cggattgaac acaacttctg tcaactgcaca 180
cgcacaaaaca cgcaaactga tccagaggty tccagattta gtatgcatac atatgtgaca 240
gCGTgaacaa attcaatctt ggaccagtc aaatatctat ttcaagccga atgcatggac 300
aacatcagac gtgtgaagtg cacttccata ggcatangaa aaacgatgct gncgggtgct 360
ttcagttaac aaagcacagt cactaatgag t 391

<210> 11617

<211> 452

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-A4

<400> 11617

cggctctagaa ttcacgggtc gacaacgcta ataacgtcac tgcattgcaag gataccttcc 60
gtgggCGTgt ttgtgagtgc cctattgtca aagggtgtaaa attcgtgggg gatggatata 120
ccaactgtga agcttccggt gttggtaggt gtgagatcaa caatggagga tgctggaaag 180
aaactaagaa tgggaagaca atatctgcct gctcgcatga agaattctgaa ggttgcaaatt 240
gtccacaagg tttcaagggc gatgggtgtaa aaagctgtga agatattgat gaatgcaaag 300
cgaaatctgc ctgtcagtgc aatggctgca gttgcgagaa tacatgggga agctatgaat 360
gcagctgtgg tggtaacaac atgttatata tgagagagca agacacgtgc atcagcaaac 420
aagctgcctc ctcaGTCggc tggagcttca tg 452

<210> 11618

<211> 444

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-A5

<400> 11618

attccccgggt cgacccaaag gtttagcttt tgctgagtat gaaacagagg agattgccca 60
gtatgctgtt aggctgtttt ctggccttgt tcggcttcac aatagaacac ttaaatttgc 120
ggtgcgttct tttttctccc tggttattta atttgctgta gtatagattg cagtgtgttg 180
ttctttgggt atggtgaatt acattctctg tgaatagttg attctgggtc caatccaata 240
cctgagggtc ttggcattac taggtttcta tttatatatt tatttacaaa gcagtagcaa 300
aagattcaac cctgaaatta tgcctttat ttttgacaga tttctgggca agacaaagca 360
tcttcaaag tcaatgttcc tgtaactcct aaaatgaagc ctataccact atcaaatacca 420
cctcaaccaa tgagatttgg tgat 444

<210> 11619
<211> 353
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-025-Q1-E1-A6
<400> 11619

gtctagaatt cccggggccga ccctaggatt gaatctctc gagaatttgt ttagccgaat 60
accggtgttt gtgttttgcc attatcgagg tgcagctcgg cagggacgat gttgaactgt 120
gctacttggt agctgcactg tgatttctc gaagaggaaa ggatggcgca gtacagtaga 180
gataagtatt tccctcagtt aagaatcaag gttatcgatc tactacgaga accaagcaac 240
acctctttag cagtacctac acataagata acagagacta gcacccaaca caaacaatgg 300
gttgtcaatc ccttgagggt taattgcaag gatcaactct catagtgata gat 353

<210> 11620
<211> 444
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-025-Q1-E1-A8
<400> 11620

gtaacggtct agaattcccg ggccgaccca attcatcaca gggatatcac ccgacgctc 60
gtcctctctt ccagatcaga tcttacgcc gcccgcccga gtctttctcg ccgccaaaag 120
caaatgacga tgctctacga aatccactcc catgcccaaa tccaagacct gcaggcccgc 180

cccgatgagc tggggccactc caacaagcgc atggatgtga agcttgtctc tctggagtcg 240
 gtgcgcatac gcgcgcagtc gtatgcactc ctctgcccgc tgatcatgga gtcgacgatg 300
 tggttttgcc cggagctgga aatcctctcg gagctggcaa gcttgtcgct gggaattcaa 360
 aagctcaagc atgatgtgtt agcccagctc aagggttcagg aggctaagct gggaaagggc 420
 gccctggaag ccctcctact catg 444

<210> 11621
 <211> 371
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B1

<400> 11621

aattcacggg tcgactgaca ttgatattcc tgctgatgtc aaaaggcatt ataagctgtt 60
 gcataagctc atgagcggaa gcgccaacaa ggaggggaat gctgcagagg aagtcttgtc 120
 cctggaatct ctacgcatgg cttaccctac cttgagcatc acggatgggtg atgatattgt 180
 ttacttgttg gccaaagggca ccggcatgag ggctatgccg acagtattct ctgttgatct 240
 cagtatgcgg actctgcgag gagtggcgaa gctacccaag aggcaccttg gttttatgcg 300
 ctacttcctt gccagtggaa tctccaaaca tatcaggact ccaggtagaa gtgattcgct 360
 tgggcaaact g 371

<210> 11622
 <211> 446
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B2

<400> 11622

tccagaattc acgggtcgac gccgtcgaga aagcgcctga tgcgggactt caagcggctg 60
 cagcatgacc caccggccgg gatcagcggc gcgccgcacg acaacaacat catgctctgg 120
 aacgccgtca tcttcggggc ggatgatacg ccatgggacg gaggcacgtt caagcttacc 180
 ttgcagttta cagaagatta ccccaacaag ccgccaactg ttcgttttgt ctctatgatg 240
 tttcacccaa atatttatgc agatgggagc atctgcttgg atattctaca gaaccagtgg 300

agccctatat atgacgttgc tgccatattg acttctagtc agtccttgct gtgtgatcca 360
aaccccaact ctccagcaaa ttcggaagct gccagaatgt tcagccagaa caagccagag 420
tacaaccgca aagtccgcga gatcgt 446

<210> 11623
<211> 451
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B3

<400> 11623

gtctagaatt cacgggtcga ccgccacaga taccttcgta ctcgatagga aagtcccctc 60
ccactaacgc acatcgccga agatgctgaa gtaaatttag aaataatgcg agtagtaata 120
tcaagtctaa gacttggaac tttgatggac tgggatacca ctgttctcct aatcatccaa 180
cagttcacia taaaaacaat ataatgttca ttaagtcatg tttctgagat tattttatac 240
gtgcttgga cgtgcttttt actagtatga gtatgtacat gttttatatt gtagtatata 300
ttactactat gttagtctgg aagcatatac cttttgttga atatacactc ttttttttca 360
gtgggggtat atatataccg catattgcga ctcttttttt gggtaaagga acatatgcta 420
tttacatcag tatacttcac aatatagttt a 451

<210> 11624
<211> 438
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-B7

<400> 11624

ggtctagaat tcccgggtcg actccatata tgaaatcgag agccagtcta tgagaaaacg 60
ggcatctgca tccagcagct caagcaacaa catttcatcg gacacttaca gttcttttca 120
tagctatggc accaaagaga ctgacagctg ggtgaggcca cacctggagc atgatggctc 180
aggtttgctg ctgcaagcat acgatgatga cattgagaaa atctgcgctg tgatgaatga 240
gctagcaggt ggtggtgtcg atggttctgc tgatcgtatc atggatgaga cgctttactc 300
gaatggcgct gatgatttca tgattctgcc agcaggcaag aatggggaga agaagaagca 360

gctaaccatc gaccaagaat tcgagcagta cttctcaaaa ctcatgcttt agcgtgatcg 420
taacagagaa tttgctgc 438

<210> 11625
<211> 397
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C12

<400> 11625

cactaaagtc tatagtgagt cgtattacaa tcacttctct ttttgaaaaa aaattaggca 60
gaagaggcaa gtaatTTTTT ttgtattttg cattcttcaa aaaaaaattg tttcacccaa 120
aactagagaa aacaaaaaca atagggaaaa aatctactta gtgaagaaag caaacaagca 180
tacacaagaa tatcaacccc aactatttgc tccccagcaa cgacgccaga aaagagcttg 240
ataatcccca agtgcaagga atcatcgtag atatttccaa aggtggaagt gataagtatg 300
gagtgtcgaa cccacaagga gctaaaggta agataaaaat tctctcaaat ccaatctgcc 360
attgagacaa ctctatgtaa accgaaagtt tgctttc 397

<210> 11626
<211> 461
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C4

<400> 11626

acgctgccag tgcggtctag aattcacggg tcgaccacct tgaatgatct gttttcactg 60
gatccagttt catacgaaca tcttttgcag ttaaagcggt atgagggcaa actcttggat 120
ttggaattgc gtttcgttac cacaataat gaaaatgctg accaatctga agaattgctt 180
cctggtggga gaggaatgcg tgttactgat cataatgtta ctacttatat tcatctaatt 240
gccaaccatc gtttaaacta tcagatccgt agtcaaagta cacatttttt gagaggtttt 300
caacaactca taccaaaaga atggattgat atgttcaatg aacatgaagt tcagtttctc 360
atatccggct ctccgaaaag tttggacatt gatgacttgc ggtcaaacac caattatgct 420
ggaggatatc atgaggggtca tcagggttatt gatatgttct g 461

<210> 11627
 <211> 440
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-025-Q1-E1-C5

 <400> 11627

 tcgtgggccc acaccaatcg ctatagttag tcgtactaca gggagatcct caagctcgtg 60
 aaggagaact ttgacttcag gcccgggatg atcagcatca acctggactt gaagaaaggt 120
 ggaaacaggt tcatcaagac tgctgcttat ggtcactttg gccgcgatga tgctgacttc 180
 acctgggagg tggatgaagcc cctcaagtcc gacaaggcat ctgcctaaga gcatggcatt 240
 ctcttgggtct gccgcctctc aagttcgtca agacgggatc atgttgctcc tgggaagtga 300
 gaagaagcat tagacattga agcgacgctc tacactgggc ttgttgtagt gtagtcagtg 360
 ctaagtttct tactgtcatt tcatatattt atcctttcca ttttgagtcg ctgaaactgc 420
 tgagtgatgt gcagtttgct 440

<210> 11628
 <211> 320
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-025-Q1-E1-C6

 <400> 11628

 tctaggactc gcgggtcgac acgatgccct aaactgagtc gacatatgac cccgaggtga 60
 aatcgcttct gagcagcacc gccgatgtct ggatgcccgt catcaccgcg tctgctgatg 120
 aaaggcgagg gtttgcgga acaagtggca acaagggaga gcaagagaaa tctaagtaaa 180
 tagcttggac tgaagccctt gtagtccttt gtgccagcct tgttctacat gtttcttaca 240
 tgagtatatg tccatagcta tgtatcaa atgtttttttt ggggggataa cagaaaataa 300
 tcacacatgt tgttcatgta 320

<210> 11629
 <211> 442
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C7

<400> 11629

attccccgggt cgacggcgac gcagtaatcg gcgaccctta cgcaatagca ttgtatttgg 60
aggacaagta ccctcagcgc cctcttttgc cccaagacct taaaaagaag gccctgaata 120
tccagatagc aagcattgtg tgttctggta ttcaacctct tcacaatctc accttggtga 180
gatttatcga gcaaaaagtt ggaacagggg agagcatccc gtgggtcaaa caacagattg 240
atagaggttt cacagctggt gagaacatga tcaaaggctg tgctgggaag tttgctatgg 300
gagatgaagt ccaactggca gatgtattcc ttgcacccca gatttttggc gcgggtgactc 360
gttatcaaatt cgacatgtcg aactatcgca ccctcgcgag gctctacgat caatatatga 420
cacaccctgc atttgaagct gc 442

<210> 11630

<211> 389

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C8

<400> 11630

gtctagaact cccgggtcga cgaaatatcc aactatccgt cgcaaaatcc agaaccacca 60
ggccaatct agacaccatc tcggatgggg ttcaacacct ccattgggtg ctctctgatg 120
atgtgtgagt agttctttgt agacctttgg atccgtagtt agtagctata tggcttcac 180
tctctctctc tcttgagtct caatacaatg gtctcttgga gatccatatg atgtaactct 240
ttttcgggtg gtttggtggg atctgatgaa ctttgagttt atgatcagtc atatcttttt 300
atatccatga aagttatttg agtttcggtg atctcttata tgcatgatct cttatagcct 360
cgtatttctt ccccgacata tgggttctg 389

<210> 11631

<211> 446

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-C9

<400> 11631

ggtcgagaat tcgcgggtag acgaggtggc ccagaggcca cacatccatg cacgccaccg 60
 gattaatcat cactctcagg atttttggag ttacagaata attgaaacct acaaagtact 120
 acagactgtt ctgtttttga cagattctgt ttttcgtgtg ttgtttactt attttgatga 180
 atctatggct agtatggggg ggtatgaaat atagagaagt tggaatacag taggttttaa 240
 accaatataa ataaagaatg agttcattac agtaccttaa agtgggtggtt tgttttctta 300
 tactaacgtg gctcatgagg tttctatttt gagttttgtg ttgtgaagtt ttcaagtttt 360
 ggggtgaattc ttttgatgga tcatggaaca aggagtggca agagcctaata cttgggttat 420
 cccatgggtc ccccaatata atccaa 446

<210> 11632
 <211> 428
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-025-Q1-E1-D2
 <400> 11632

ggtctagaat tcacgggtcg acaaagggtg agtggtgaaa gatgtccgca acggtaaact 60
 ccattacggg agcccaacct ggcgcgactg gctcgagagt gagcggacca ggaccaacag 120
 ccggatatga gtccgggggt ccgggaatac aggcctccac agcgggtggga cccgtgttcg 180
 gctctaccac cgataagtgt gcggcctcgc gcgtgggggtc cgccctccg tccataggca 240
 acgcaacctg ccctggattt agttccaagg ctgcttcggg gatgatgtcc tgggcactgt 300
 ccgatagcag gtctagggtc tgcttgctgt ggctgtccga cgctcctggc gtaggctcga 360
 atccttcgaa catcaagtct ccgcggatat ccgccgtgta gttcaagttt ccgaacctga 420
 tctagtgg 428

<210> 11633
 <211> 417
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-025-Q1-E1-E11
 <400> 11633

ggtgtagaat tcacgggtag acttcacga cagcgatatc catcatctca tcgaaagacg 60

ggacaccttt gcctctatca caagctctga ggctccagca tgcatatata tagtagagag 120
 agtgtgaaga gtgcaaacc tagaaaacaa gcatcggggc tgcagtgtat atagatggag 180
 tggttttatt tttatctcca taaaaatcgt tttaaattgt gcaagaaatg gaactcttta 240
 tttaacgtag tgaagaaaaa tgctaggggc aatgctaata agtgaagaaa atttaacgct 300
 ctaaggagtc agctcgcaat taacagtgcg cgccctcccg tcgcgcttac taatgttcac 360
 gtgtggtaca cgaccctccg aagtgaacaa caattgaaac acacacggtc aaaatat 417

<210> 11634
 <211> 460
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-E7

<400> 11634

gccgccaggt aacgggtctag aattcccggg tcgacatgtg taagggagtg cagtatctga 60
 atgaaatcaa ggactctgtt gtggctgggt tccagtgggc atcgaaagaa ggtgctttgg 120
 ctgaggagaa catgcgtggc atctgctttg aggtctgtga tgttgttctg cacactgatg 180
 ctattcacag ggggtggtggc caggtcatcc caacagccag gagggtcatt tatgcttctc 240
 agctcactgc taagccaagg ctgctggagc ctgtgtacct gggttgagatc caggccccgg 300
 agaatgcact tggcggtatc tatggtgttc tgaatcagaa gagagggcac gtgtttgagg 360
 agatgcagag gcctggtacc ccgctgtaca acatcaaggc ttacctcccg gtcacgagtc 420
 cgttcggggt ctcaagtacc ctcagggctg cgacatctgg 460

<210> 11635
 <211> 445
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-E8

<400> 11635

caggtacagg tctggaattc ccgggtcgac agaaggggga aaaggaagac aggcaagagc 60
 tcaagcttgg ggattcccga ggcaatccaa gtaaattatc aaggagactc aagcatctaa 120
 gcttggggat accccagaag gcatccctc tttcttcaac aagtatcggt atgttttcgg 180

attcgtttcg ttcattcgat atgtgcaagt cttggagcgt cttttgcatt tagtttttac 240
 ttttctttca tgcaccatga tggatgaga tagttcttgg tttatttata gaatgatcat 300
 tgcacttcac ttaaataattt tgagtatggc tttatagaat gcttcatgtg cttcacttat 360
 atcatttgaa gtttggattg cctgtttctc ttcacataga aaaccgccat ttgtagaatg 420
 ctcttttgc tcaacttatat ttgtt 445

<210> 11636
 <211> 258
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F1

<400> 11636

cggggagaag gaagagccgg tgaagaagga ggctgagtcc cagatcgcca ggaaggccta 60
 gagaaggaag ctctacataa cctatcccc tattcgtag agcagcttgt agcatctggt 120
 ttggctgagt ggaaattttg gcctgttata tgcgtctaa atactgctag ctcagacttt 180
 gtgaaacctt tgatgatgtc tcatgtactg gattcaatct gggtgtgttt tggaatattt 240
 ttcatcgcat gagttttc 258

<210> 11637
 <211> 432
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F3

<400> 11637

ggctctagaac tcacgggtcg acaaggccac tcataatgca tcttgaaacc atgcaggagt 60
 cagctgctcg aaggaagaa gcttgggctg gtgtggagag aaccttgaac tctcgcttc 120
 aggaagcggg ggcgaaagct gctgcctcag aagaaaagga gcgatctata aatgagagac 180
 tgtcacaaaa tttatcccg ataactgtcc tggagacca gattacaatt cttaggacag 240
 aacagacaca gctgagccga tctcttgaaa aggagagaca aagagcatct gaaagtagac 300
 aggagtacct agcaaataag gaggaggcgg cattacaaga aggacgcgcc aaacaacttg 360
 aagaagaaat aaaggagctt agagccaggc aaaaaagga gctgcaagaa gcagcagaac 420

acatggggct gc

432

<210> 11638
<211> 444
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F5

<400> 11638

ggctctagaat tcccgggtcg acattatgca tgggcttgaa tcccagacaa tcgaatccct 60
gaatctcttg aaaagtcgag atgcagtatt tatcgttgct ttgaacaagg ttgatcgtct 120
ttatggttgg aagacctgcc ccaatgctcc tatcgggaaa gccttgagac aacaaaatga 180
tgacgtcaag ttggagttca atacgaggct tactgatatt gtgacacaat tcaagatgca 240
aggtgtgaac actgctttgt actacaagaa caaagagatg gaagatacat ttaacattgt 300
gcctaccagt gcagtaagtg gtgaaggcat tcctgatctg cttctactat tggtgcaatg 360
ggcacaaaag acgatggaag aaaagcttac ttttgttgat gaagtcacgt gtactgtcct 420
ggaagtcagg tcatcgaagg tcat 444

<210> 11639
<211> 450
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F6

<400> 11639

taacggtcta gaattcccgg gtcgacgggc agcacgcaga ctgcggtgga gctatgatca 60
gcaaattgtc gaacaccaca tggcccaaag gggccttcac ggagacaatg aaggtctggc 120
aacaagagtg gttctacatc accgagccgc gccgcactaa gtgggcagcg attccggagt 180
tcagattcgg acccccatg aggctcacct cctggaatgc gaagggccat gactgggggt 240
cccagatgga ggtgcatgag ctgcaaatgt gcatcactaa catgctgggg aagaacgttg 300
gtctatccaa cgtggttcag atcaagctct tccgctgcat tctcccctac cagcgccggg 360
cctcccccat gtgggaattc aaaccggagg gacccggggc gttgccccac ttcctctgca 420
ccatgaacga gtcattgagga catcaatacc 450

<210> 11640
 <211> 415
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-F7

<400> 11640

ggctctagaat tccccgggccc acgagcagtg gaagcgcgac accctccccg ccgacgatat 60
 ccccgctgccg ccggcgatgg ccgtgaagac cgaggacacc gaggaccag cgcccgcaag 120
 aattatttca taccacacag atcaggaaaag ccagccagca caaggggacg tatggaggga 180
 ttttgcttg gagaatatct aactgcttat gatctagtag aagtgttca agggatcaag 240
 attctgctgg aattctacga gctgcacggc ggactctggc cttttagat atttcttaaa 300
 tccagtggat gaactagtgt actgtatctg gttgaactgt actgtgtcat ggcaatatgt 360
 atatgctcca gatattggca gcatgatggg attgaacatc gtcagaaact agatt 415

<210> 11641
 <211> 435
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G1

<400> 11641

gggtcgacag tcgggggtggc actcgggtgc atgctcgctt tgacagtcac caaggtcgca 60
 atagagtcgg tggaggctgt gctcggcgac gctgagagag agtctatcaa gcataagtcc 120
 atgctgttgt ggctgaagcg acttatggat gccgacatgc ttgaagattt tgaagatgaa 180
 accgacctca acctggtatg gattctgtcg atttggtcac tatcaatgtt gatatgaatg 240
 attttgttta ataacatatt aatattttta gataatgaac tacatctaaa acttttttta 300
 tgtagtgaag tagatctgaa cctcgctgtt ggagttgatc tttgagtcga tgttaagtaa 360
 aagttacatc tacttgttga tgccaagacc gccatttcgt tcctaaatgt cgctgccttc 420
 ttatgtttca ccaat 435

<210> 11642
 <211> 454
 <212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G4

<400> 11642

ggctctagaat tcacgggtcg acaagatttt atctagtctg gatagggaca acaaattgaa 60
gaatggaatg gagtatgaag acagtgaaga acagcatgct cagctgagca ctactgaccg 120
cacttttctg gcaaaggatc ttccagggca attgtcatcg aaggctcaag ctttagttga 180
agcactggag ggaaagcggg ttgactcatt tatggacgcc ttaagagata cagcagagga 240
aagtggcttg ttatttaaga agcttgataa aagacttgag cgatcaatgc tgcattccta 300
ccgcaaggat ttgatagcac aagtttcttc agagactgat ccagtttctt tcttcccaaa 360
agtcgttgct ctactttttc tccaggcaca caacaagggt cttcaggcac ctggaagggc 420
tgttggtgct gtcatcacac tactgaagga caag 454

<210> 11643

<211> 447

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G5

<400> 11643

gtaaggctta gaattcccgg gtcgaccggc catgatggaa tggatctctg tcgaatgcgc 60
tccgatgaat gctcgcggag ggaagatggg gaggttcaga tctaaatccc cgtctctttt 120
ataggtagct catttgcgca gctagggggg taaatgaaaa aacaccctgg cttttcgcac 180
tcgtttgaca cgtggaggac gactattatt ggtcacagaa gccgaggagc acaacattca 240
ccagaagcca gacactattc aacaggtata tggagtttgg agaagaacct gccttgcaat 300
gccgaagaca aatctgcgcg ccggactcat cgtcattgat gcctggttcg ggggctactg 360
agggagtccc ggattagggg gtgtccggat agccggacta taacctttgg ccggactcct 420
ggactatgag aatacaagat tgaagac 447

<210> 11644

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G7

<400> 11644

gcggtcgac gtcatacggt acattgagat caaatagtaa atgagaggca tgaagataca 60
ggggagagtg gtttgcccca gaggagtgtt caaagcctct tcttctgaga ataaattttt 120
gtatggaatt atgtcagcta aaaacctttt attggatgta tcctgatggg tggtcacatt 180
ttggtggtat tatgtacttg cttgaactaa atcatgagtc attttcaaaa aaaagaaaaa 240
gagaaataga atatggaaca aggaaataaa gctatgcatg tgaacaaaag aaatggacac 300
taagaaggca caaatgagtg agcgtatgaa agcaaaaaag cgggcgctca aaaggatcaa 360
agcttactta cgcgtgaagg gaagttcaaa cctcttcta 399

<210> 11645

<211> 454

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G8

<400> 11645

aggcacaggt ctagaactcg cggtcgaca agtcgagtta caagaaagct tcgtgaactc 60
caactcatcc tcctactaca agcaacttca agccgagagc tttatcatca tccacaccaa 120
ccgatgagac cgtcaagaca agttccttca aatgcttcac atgcagaggc cgaggccacg 180
agtcctatga gtgcaccaac aagcggacca tgatactcaa tgacgacgga acctacgact 240
ccatgagtga aggagaaatg gacgggtcttg agcaagtcgc catgcactgg caagtgaact 300
atgaagagga acaagtcttt tgtgatgaag attcaagtct cgctcttggt gtctccaagg 360
tattgactct ccaacataac caagaagaag accaaaaatg ccacatatcc cacaccaaag 420
ccggcatcac tgtaagatcc gtcaaggtca tcac 454

<210> 11646

<211> 348

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-G9

<400> 11646

cgctgcagg ttccggtcgc gaattcccg gtagaccgct ttgtcttttt tttttttaat 60
 tttttttttc ggaggatctc atgaacaact aaatcacgac ataatgaaca tgtagcctca 120
 cgtactagta actcataagc aaacgatatt ccaaagctaa tgggggtggac gcttcagtta 180
 gcatctaaac cagcactttt ttcccagttc cgagtccaca ggaccagtac ggcaaagggc 240
 gcaaaaaaag agccatctac atatcattcc tatagttagg caagaaatga aaccatcatt 300
 ttttatggat ttactccca ttatggaacc acacagatgt atgatgct 348

<210> 11647

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-H1

<400> 11647

gggccaggat tcacgggtcg acttttccac taacaacccc atcataacca caactctgcc 60
 ttacgtaaag ttgccagagt acgattaacc tctggatttg aaatcactgc ttatatacct 120
 ggtattggcc ataatttaca agaacattct gtagtattag taagaggagg aaggggtaag 180
 gatttaccg gtgtgagata tcgcattatt cgaggaaccc tagatgctgt cgcagtaaag 240
 aatcgtcaac aagggcggtc taaatatggg gtcaaaaagc caaaaaata agtgatttta 300
 gcccttataa aaagaaaacg gattcttgaa cctctttcac gctcatgtca cgtcgaggta 360
 ctgcagaaaa aagaactgca aaatccgatc caatttttcg taatcgatta gttaacatgg 420
 tgggtaaccg tattatg 437

<210> 11648

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-H2

<400> 11648

cgggtctaga attcacgggt cgacatcgag ccagatgcgc atgtcaagca ggcatgaat 60
 gagattaatg cagctgcaag gatgagggtg gctgcaaacg agaaggcgga ggctgagaag 120
 attgtccaga tcaagcgtgc cgagggtgaa gcagaggcca agtacctgtc tggcctgggt 180

atcgcccgcc agcgccaggc cattgtggat ggcctgaggg acagcgctct gggctttctca 240
 gtcaatgtgc ctggcaccac tgcaaaggac gtgatggaca tgggtgctgat caccagtag 300
 tttgacacta tgaaagaggt tggcgcgtcc tccaagtcct cggcgggtgtt catcccccat 360
 ggccctggcg cgggtgcgca catcgccacg cagatccgcg acggtcttct tcagggccag 420
 tctgcctctg acaactaagc actttgct 448

<210> 11649
 <211> 418
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-H6

<400> 11649

ggtccggaat tcccgggtcg actggacata taccgccgag gatcatattt tacagggatg 60
 ttgtcagcaa aggacggctc aatatggtta ttgagcatga actttctgcc attaaaaagg 120
 catgtgcgtc gctggatcct atttataatc cacaagttac cattattatg gttcagaaac 180
 agcaccacac acgtttgttc gctggtaact atggtgttgg gagcacaatt ttgaaagtg 240
 gaaatgtatt gccaggtagt gtggttgata aagaaatatg ccatcccaact gactttgatt 300
 tttacttgtg tagccatgct ggcactaagg gagtcagccg gcctgttcgt tatcatgttc 360
 tctgggacga gaacaatttt acgggcaacg ctttgctaatt tctcactaac catctatg 418

<210> 11650
 <211> 456
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-025-Q1-E1-H7

<400> 11650

ccgccaggta cacggtctag aattcccggg tcgacaccac cggcgccggc gacgccttcg 60
 tcggctccct cctcgtcagc gtctccaagg acgactccat cttctacaat gaggcgaagc 120
 tgaggggggt gctgcacttc tcgaacgctt gcggcgccat ctgcaccacc aagaaggag 180
 ccatcccggc gctgcccacc accgccaccg ccctggagct catcagcaag ggcagcaact 240
 agagacgcct tgtgtcgcgc cgtcgggtct gaatcttagg ggagtttagc tgcactttta 300

ttattagga tgaattgagt ttagttcgtg tgtgtcagtg tgtgacctcg tgggcgctta 360
 ataaaaagca agcatgtgtg gtgatttttg ttgccgtctt tgtgtaagga agctactgat 420
 tgtttagacc ttcacccaaa ctttatcaga gtcttg 456

<210> 11651
 <211> 450
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-026-Q1-E1-A1

<400> 11651

taccggtcca aatatchcgg gtcgaccagg ctgagaaaat gggacttgac tacatggatg 60
 ttgaaagtct caagaagatg aacaagaaca agaagcttgt taagaagcta gccagaagat 120
 accatgcttt cttggcatca gaggcataa tcaagcagat ccctcgtctc cttggccctg 180
 gtcttaacaa ggcaggcaag tttccactc tggttagtca ccaggaatct cttgaagcca 240
 aggtcaacga gacaaaagct acagtcaagt tccagctaaa gaaggttctt tgcattggcg 300
 ttgctgtggg caactgtcgt atggacgaga agcagatcca acaaaacatc caaatgagtg 360
 tcaacttcct tgtgtcncct ctgaagaaga attggcagaa tgtgaggtgc ctgtacgtga 420
 agagcaccat ggggaagcgt gtacgggtgt 450

<210> 11652
 <211> 465
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-026-Q1-E1-A12

<400> 11652

cgctgctag taccggccct gaattcncga ggtcgacctg aggtcgtgg gcccaagacc 60
 cgtggaccgg aggtcgtgg accggagtcc gtgtagcctc ctctcggac gagtccaccc 120
 tagcagtcac gtgctcgggt gaaacagctg ggggtggcgg cgaggaaggc gccgtagcag 180
 tcacctacc tctctcccg cgaccagtg cccacctcc tctcttcta cctcgtcccc 240
 tgctgggcac cgcggtcgac gaggaagggc cggcggtgt ggccatactg tccagcaacg 300

ctcggcggag aggtgctgtct ggaatggaag acctcagacc acgagccgac gaagaagggg 360
 ccttggcgcg ctcccgacca gagcccacca tctttcaaca cctgccatga caaacagtaa 420
 acgaaattag tacaacatag ataaaggacg acatgaataa taata 465

<210> 11653
 <211> 382
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-026-Q1-E1-A6
 <400> 11653

gcctgccagt accggtccga gcttcccggg tgcgccacag agttaattac ttttgttgaa 60
 tctgatcctt tccatgggta tgaaactgaa actgttgtgg cacatcttac taagtcgaat 120
 ggcataatcga cccttttcac tcatgatgag aagactcact attactttat tctcaaatta 180
 tttcctttct cattaaaggg tgatgctaaa gcttgggtaca atactcttgc tcttggttgt 240
 ggcgcgtagtc ccgaggatac gatttaatac ttctctgaaa aatatttttt tgggtcaaaag 300
 aaagtagctg ccttacaagg aatatttaac tttgtgcaaa ttaaagagga gagtctccca 360
 caagcttggg ggaggctttg cc 382

<210> 11654
 <211> 468
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-026-Q1-E1-A8
 <400> 11654

taccggtccg agactcccgg gtcgcacaca gctcccgaga gggccactca tttctttgta 60
 cacgagttca tccaccatcc actcctcggc aaccttcaga ctggtcattct cttggtagat 120
 ttcttccggc gagagcttct gcagaactgc catccccgta aaccatgagc tgtaaccagc 180
 attgaagtag tatgtgcatt tcacgcttaa tacttcattc acacagtcaa agagcagcct 240
 ccgaatcatt ccgaaagatt ttccctcttc ttcaccact ggcagcctaa aattgccatt 300
 tagttcttca aacagatgtg gatccaggat atttgagcta tcaaactgct cgaagtaaga 360
 gcaagcatta tctctgagag atatagcatt cagtatttct cgtaagaact ttagctccat 420

acgacatgag ctgctgcttt ctgatggacg tgttgtttcg gctaaagt 468

<210> 11655
<211> 388
<212> DNA
<213> Triticum aestivum

<223> unsure at all n locations
<223> Clone ID: LIB31-026-Q1-E1-A9

<400> 11655

gcctgcccgt accggtccaa aattcncggg tccacctgaa cgcaaacaca gtcaagatca 60
aggctgccgt gaaaaagatg tacgacatcc aggccaagaa cgttaacacc ctgatcaggc 120
ctgatggcaa gaaaaaggcg tacgtgaagc tgacaccaga ctatgatgct cttgacgtgg 180
ccaacaagat cggcatcata taagtcagag ggacggtcct gcaataagcg cttgtgtcgt 240
ggtttcttat gttattggag ttttgtagtt gtgacttagc aaacgggctc agtggctcca 300
ttgcctacca tatcgccgcy cactttcatg aatttgatgc aatcgaagtg acttgtgttg 360
atgctaattt gagctttgcg tttggtgc 388

<210> 11656
<211> 395
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-B10

<400> 11656

actcccaggg tcgacccgat gcgataacat gagtcacagg gtcgtcggga tgttgtcggc 60
ggtgtcgcac gccatcagag cgctgccaac taagtgtgtg cgaccgcaga ccagagagag 120
agcgagggga catgaccgtg agatgtggag agagatcatc ccatgcgtgg tcgacgcagg 180
tccaaagggc aacttacgga tgtctcaca agtcccatat ggcaggggca aaaaagcgag 240
tggatactag acagtggcat accatcacag agaatgtcag taatggccca ttgttgaagt 300
gcattactac caagtgcgca cattgccaat agttgggggtg aaccggtcgt tccaaagaac 360
aggcgacta gaggatctaa gcttacgtca gcgtg 395

<210> 11657
<211> 389

<212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-026-Q1-E1-B3
 <400> 11657
 gggacgacaa cctctacatt tcagacattc caggtgaacc aagcccaaaa gcagaggcgc 60
 cgtacatacc gtgctcacgg acgcatcaat ccttacatgt ccaacccctg ccacattgag 120
 ctgatcttgt cagagaagga agagcctgtg aagaaggagg ctgataacgt cttcgcacca 180
 aggaaagcta tctaagctac cggaatggat gcattcgtcc aacagtctta gttgtagttc 240
 ttctcaagta cctttgttgg cactgtatgt tgccctccctt gatgtctttg ttaccaacat 300
 tgattaagga tttgttaacg ttgatgctat ccttgtgatt gccagtggtc tttatatgct 360
 aaaacagttt cagatatattg agcatttagc 389

<210> 11658
 <211> 473
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-026-Q1-E1-B5
 <400> 11658
 taccgggtcca gaattcgagg gtgcgacacgc aaacgggtgca caaccagccc catgggtaga 60
 ccttgcatgt ctgatgggtt ccatgcaaag atgtcccagt tctcacgaag gaactggatg 120
 agcgcgactt cctatttgcg agcgagtgtc gttgagatgt gcgctggagc agcgggtgggg 180
 tcctccgggt gaatgtggac tggcttcgtc gcgctgccc actggaatgc ggattctgaa 240
 gcatgcttct tagctcgcaa aaaatcactc ggatcggcat ttttcttgta ttctctatc 300
 tcgaatgctg ccatttgcgc atcggcaatt tttgagcctt tttgaaggca ctctctgct 360
 ctctgcctat ttcccgtgac tgtgatcaca cctctggctc cgcccatctt caacttgaga 420
 tacacgtaac atggtcgggc cgtgaaatga gaatatgcgg gcctgcccag aat 473

<210> 11659
 <211> 426
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-026-Q1-E1-B6

<400> 11659

tcgtgggttcg acacaactcc ctatactgag tcgtattagt atttatatag caaagaggcg 60

gtgcggggagg ccactgatgt gggcacaaac cagatgggcg cgcttggttc cccagggtccc 120

ccatgatgag ttgtgcacac cactgggtcc gtcttgaata ctttcgtaga tgcacaagtc 180

atcgccgggt caaaagtgtg tgtaagctag attactatac tacttcatgc agtttcacat 240

gtatatcatt ggagtgttat gtcattcatt ttgcatcgta tgatttcttg aactatgtga 300

gaagtgtcct ctttctttcc tcatatatag tctccagctc caagcagctt tactttcaga 360

tacattcata gatgaccatc aatacaacgt catagctctt cgacattttc ttataaaaaa 420

cgttca 426

<210> 11660

<211> 284

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-B8

<400> 11660

tactgagact cgtagttcat cataacaccc tatagtgagt cgtattacgg agttgtcttc 60

aacgtcttcg agcatcttgc atctggactc ctacgcagat gggcctctct aatatctgtc 120

ttctctgtta ttcaaactc ctccgatcat caggttgtca atctacgacc cagggacgtc 180

ccaatcatal ggatagatca ccaaagccac atgtctctga gactttggat aggcatctac 240

cgacatctgc attattaaga ctgccgttac ctctcatca cgat 284

<210> 11661

<211> 400

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C10

<400> 11661

gtcgacggag gtccgtacac tcgatcgaaa gagacggagg acatactcta gcgatgcttg 60

ctaccttgtg gggcgacact atttgtctca cgcatacagg gctagtttgg atcgagtcct 120

cgacattgtg cctggaggaa agtgctgcct ggagcctggg gtggtggacc ttttttgcct 180

ggccaggcaa acctgggcat gtatgtatgg ttccatccct gggtagcggt tttgccaatt 240
 agtgactaaa gaacttttac acgatggacc atactgcaca tgactcttga aagtgccagg 300
 caactggcca agcgaatgac acatgacgcc tgagtcacgc gattatcatg agacattcat 360
 cattgtcaaa aaggcggccg ctcttgagga tccaggctta 400

<210> 11662
 <211> 493
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C2

<400> 11662

ctggtacgcc tggcgggtacc ggtgccaaat tcgcgggacg acgagaaggt tcagtggatg 60
 cacatcgaca tggcggggcc ggtgtggaac gacaagaagc gtgccgccac gggattcggc 120
 gtgtccaccc tggtaggagtg ggtgctcaag aatcatcat cctgaatgga catccccct 180
 gatttcatt gttctgata acaacgccag agaaggaaga taaacagagt gctgttcatt 240
 catgattgta ccagggaata tgaatggatt ttatttgctt ttggctggcg tatggactat 300
 ggatgggagc tatagaatta ggaacggttt catggaggaa aatagaacag aatcagaatg 360
 tcgttgaaca catcccttgt cagattatat ggtgtttcat cgttttcatg ttgtgcctgt 420
 gactggctcg tgtgtctaa ttatgtcgtg tccttttggc tcatgttgaa tatgctaag 480
 caatggtgct ttt 493

<210> 11663
 <211> 478
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C6

<400> 11663

acgcctgccg gtaccgggtcc aaaattcccg ggtcgacaac ggcaaccgtc ccaacatcac 60
 cgggtgaaaag acatcgcgcc aatggagcta cccctacggc tcctatctca actctcatta 120
 ttctacgtct cctgttttga ccgggcgctt ctccaactac aggatgcaat cagattttat 180
 agcaaggatg ttgggtctcc atgaagcccc tccagcgtac gagctcacag aagatcaatc 240

ttgtgactca tctggcatga cctttgcttc tgggtggcgct ggtgtcttca aggtgaagac 300
 caagaaggtg ccgacacttg ccgcacaagt tcaaactttc aagaggcttg tcaaggatgg 360
 ggtcatctca acacatcagc ttcaccactc cgtcgcgctc atcgccatct ccggcaatga 420
 ttacatgagc gactccgaca ttgagactgg cttctacaca agcttcgatg atcttgat 478

<210> 11664
 <211> 201
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C7

<400> 11664

caggtccaag actcgcgggt ccacggtaat cgctataatg agtcgtatta tcacagaaat 60
 ctaccacacc gagcaaccga ctgcatgtct ccggaccaat gtgtttcagc agacccatca 120
 taccgcagc gattcctccc agattcaagt cgggtactgg agtcagcaag ttcaatcgct 180
 attctaacc ccaatgttctg g 201

<210> 11665
 <211> 250
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-C9

<400> 11665

ctatagttag tcatattata tctcgcatag acgcgtcctc tggctgaaca gcagtacccg 60
 tatgctccgg caagccaaca atggatcggc caaactacca cataagcaac cggagacgct 120
 agcttggcag atgaagggtgc atttctcaaa tgagtgggtga ctgcgcgagct gtgggtcact 180
 gtaactcgcc ggcataaatc gacgtctccg ttgacggccg cctttttttt aaaatttgct 240
 gaaaatcttt 250

<210> 11666
 <211> 273
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-D10

<400> 11666
 ggaagagcca gaggagtgga ggaggcttga gcaggagcct caaggagcac agggccaggc 60
 tctacatcat ccagcgtgc gtcgtcatgc tcctccgtg gcacgactga tcgactccct 120
 cgctccatgg atggatccgt ccttccattc catggatggt gtttgaagca aagatatact 180
 ttttggtttt gggctctgtga ttgtgctgtg ccacaatggt gtcggcacgt agtacttgta 240
 cataagaggc gagtcaaatt atagaagtag aag 273

<210> 11667
 <211> 448
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-026-Q1-E1-D2

<400> 11667
 ccggtgcgag attcncggga cgacttccac caaagcgaaa tccaccatct catcgaaaga 60
 cgggacacct ccgcctctat caagcgggat cagatttcca ggttgctcgg tgagatttta 120
 cagtttttcg tagtttagat cgagtctggt cttcatatct acagtccacg aaaaagccac 180
 aaaaaaatt tagggtagt tcatcatatc cgaaccaatc tgagcctttg cataatcttt 240
 ttagggtttt tgctttgttg aatttgcggt tgcacgctcg gtctagttgc tgggtctaaa 300
 gtctaattct ttagagtttc gagttctggt cataagttgt cacgccgcg ccacaccatc 360
 atcatcgccc ctgccatcta ccaccaccgc tcatccggca ccgtccgaa ttcgtatcca 420
 tataccacca ccaatccgtg tccatata 448

<210> 11668
 <211> 459
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-026-Q1-E1-D5

<400> 11668
 cgctgtcaa taccggtccg agattcccgg gtcgcacgtg gtacgtcaaa cctaattattg 60
 ttgtctgcgg ctgatggagg gggccaagtt cttgtttata aaattttgtt caaaatttta 120

aaaaaaatac tgctgtgttt gcaaattgtg gtcatagaatt caaaaaaagg ttcttggtgt 180
 ttcaaaattc cttgcttttt ggaaaaaaa atcgtaaact gcaaaaaatg tatgtgttta 240
 taattttttt caattttttt aaaaatgttc atcttttcaa ttttgtccat aaattcaata 300
 aatgtcagga acatttcaaa atgtacgcac atttcaaaag tgttcaaaag ttaaagaaat 360
 ttcaagtttt ctattgtcag tcacaaatta gaaaatgttt catgatttcc aaaatattag 420
 aattttcaat ttgtatttgc ttttttaaaa actatttgc 459

<210> 11669
 <211> 389
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-026-Q1-E1-D7

<400> 11669
 taccggtccg agattcgcgg gtccactcgg tgcttggtga tcccacgggc tttcagcaag 60
 agaatgtggt gaccggcaag atctcagcca tgcgatcgtc gtcgtagttg tactgggtggt 120
 gcttgactcg ctagagtgtg agaggaacgc agcttgacgc ccaatcctat tatcaagttg 180
 ggctctggta tgcaacggat gaaacgtctg tgtcaagaac tgttgctctca gggctctgtgt 240
 ggtcagctac gtccgatagt ggtttggtgtg tcgtccattc ttcccatggg taattttttt 300
 tcgcaccctg gtgctaaatt agaccttgat gctgcggatg aaaccgggtg tgctgaaatg 360
 agatcagacg ttttgtttcc gataacagc 389

<210> 11670
 <211> 453
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-026-Q1-E1-D8

<400> 11670
 ctgcggggtc gcacagtatg ccctatatgt agtcgtacaa tccagtgaag accacttaca 60
 ccagtgctaa gttggcaaag atatacatga ccaagatcgt atgtttgcat ggagttccga 120
 ggaccattgt atccgacaga ggaagccagc ttacctcga ggttttggca gcagttacat 180
 gaaacattgg gaaccacgct agaatttatt acagcttttc acccacagac agatggacag 240

agcgagagag tcaaccagat tctggaggac atgttgagag cttgtgcact agattatgga 300
tctagttggg atgacaatth gccgtatgag gagttttctt ataacatcag ttatcaaacc 360
agtttgaaga tggccctttt cgaagctttg tacggaagga tgtgtagaac accgttggtta 420
tgggacgaag ttggagaccg tcagttgttt gga 453

<210> 11671
<211> 451
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-026-Q1-E1-E1
<400> 11671

ggtacgcctg gcggtaccgg tgccgaaatt ccgggacgac catggcgctcc tccaactccg 60
gcggcatccc catcaaggcg gaacaggatt cggaaggctc ggcccagagc acagctgata 120
tgactgcttt tgtgcaaat cttctagttc agatgcaaac caggttccaa actatgtcag 180
agaacatcat taaaagata gatgaaatgg gtgcaagaat cgatgaattg gagctgagca 240
tcaatgacct caaggctgaa atgggcagcg atggtatgac ccctactaaa gtgaaggacg 300
aagaatcaaa gccagcagac agctctgcct gatttaagca gaagtagcag aagcaagtcg 360
tattagtctt ggttccatgt caatatcatc agccattcat cactaactta atgcatgtta 420
tgagatgtta ttcgcactgt tatatgcatt t 451

<210> 11672
<211> 394
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-026-Q1-E1-E11
<400> 11672

ttcccagagtc caccaagacc cagaagagca ctggcccaag ggggttttaa taatatgacc 60
atcgggctcc ggaaacccaa gggaaaaaga ggctacgtgg caaatggtaa aaccaaagtt 120
gggcattgct ggaggagttt tattcaaggc gaactgtcaa ggggttccca ttatcaccca 180
accgcataag gaacgcaaaa tccaggaaca taacaccgat atgaccgaaa ctaaggtggc 240
aagagtggaa caaaacacta tgaaaaaaag ccgagccttc caccctttac caagtatata 300

gatgcattat gataacaagc taatataatg atatcccata caacacccaa agccctgaaa 360
 aaaaaaagcg gccgctctaa aggattcaac ctta 394

<210> 11673
 <211> 407
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-026-Q1-E1-E3

<400> 11673

cgctgccccg taccggtgcg atattcncgg gacgacgacg gttgccgggg attttcgtgg 60
 gcagtgactc cggaagatga tcgtgttcca ctgcctggta tccagaagca agggatggac 120
 acgcaagaca gaccgagtgc accgcgtttt atagatcgtc acatccaccg gattccccca 180
 tgactgagac tccaatcgca gaagcctaca gacagggata tgtcatgaca ttgccccaaag 240
 ttggataatg gtagtactgt gaatgccgca ttcagcagcc cgcaccaatg tgatattcgt 300
 gtccaatcgc ctgtccaaat aaggggagat ccctagtctc acggttccaa caatgtgcaa 360
 aaagcaccac acctgtggga acatgtaccg ctgtaaatgc acagcaa 407

<210> 11674
 <211> 427
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-E6

<400> 11674

ggtcacaaat tcccgggtcg acgagatttt cattctgggg cccgtatttc tacacaatat 60
 gtatcccttt gagatgttca tgggagttct aaataaatat gttcgtaatc gctctacgtc 120
 agattgaagc atctccatgg gccataaaat agaatatatc atcgggtttt gtgttgactt 180
 cattcctggc cttaaaaaata taggtctccc taaatcgcg tatgaggtaa gactgactgg 240
 aaaatgcaca cttggaatgg actcaataat atgcacggac ggatattctt ggtctcaagc 300
 aactacaca gttctacaaa actctacctt ggtgatccca tatgtcgatg aacacaacaa 360
 tagtctgcgc tccaaacact tggagcagtg cgacgactgg attacatgtg aacacatcat 420
 gactttc 427

<210> 11675
 <211> 448
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-E8

<400> 11675

attccccgggt ccacgttggt gaccagaaca gggcacttgt tgatgctccg gacatgggcc 60
 gctgccagat gaacttaaag cggctctctc tgaccgacat caagattgac atcaagcgga 120
 tccctaagaa ggcaactttg atcaaagcta tggaggaagc tgatgtgaag accaagtggg 180
 aaaacagctc atggggcaag aagctgattg tccagaagaa gagggctgcg ctcaatgact 240
 tcgacaggtt caaggctcatg cttgccaaaga tcaagagggg aggagctatc aggcaggagc 300
 tagcgaagct taagaaggag gttgctgctg cttagatcac tttggcgggc agactgttga 360
 gcttttggtc agagttgtat ctttgcccca aaatcgtgaa atattgtgcg aatcactcat 420
 cactgttatt ggtgtatcag atgaaaat 448

<210> 11676
 <211> 477
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F5

<400> 11676

cgctgtcga taccgggtcca aaattccccg gtccactgag acctagccac actgttagtt 60
 gtaatatttt cgataactca aactgaaaaa tggtcgagc actaatatga tttagtgaat 120
 ttgattatta tatatagtta ggagatattt aatgatatgc gtacatcgaa gagtggtaag 180
 ggtctttggc cgggtgcttc ttctgctata tattcagctc tctcagcgag gtgcgaggtt 240
 ccccgagtgg aactccccgag aaatgggttca aaacggccgc aggaggggtg ttgtctctc 300
 tttccgtgga cgaggacatc tctgtatcc cagtacacat gacgaacatg aggaggcggc 360
 gatcgcaccg gcggcgagtt tctagcgctg caaactgcaa gtgagcctcc gaatccacct 420
 tttagtttat cctcctctca tgagcagatg catggactat ggtgacgctg cttatgt 477

<210> 11677
 <211> 457
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-026-Q1-E1-F6

<400> 11677

```
cgggtccaaaa ttcccggggc gacctgcagc tagaggaggc cccgacctgc agcaggccgt 60
gcgccaccact cgacgctcag gatgtccaag ttcttgccac tcatgtcggt taactctgtc 120
gtgctcctca tgaatgaccc tgctcacgaa ccccttgaga ccccccctcat tttgcaggag 180
cttgccactc taaaacaaac tctacaccgt ttccattctt caggagtcca ggtacctagg 240
ctgctgacta tgaaaacccg ctogtgctaa ttagtattat taaactataa ttttcttgta 300
aagtggaaaa tgctcatgcc ccttgagcgt tggccatggg attttttatg ttgtgttctt 360
cccgctccgtc catgattcga aatgtgttct gaacacttat gttagaacaa aaactgtagt 420
gttcttcacg ttctgccttg attcanaatg tgtttgtg 457
```

<210> 11678
 <211> 455
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-F7

<400> 11678

```
cgggtccaaaa ttcccggggc gacctagaat actacagaag gggctctgaga cgagtatggg 60
ggattcgcta attggggcgc atactgaaga agcattaatg tgcaaatctt gctttgcat 120
ctgctaacag ttatagggtg ccaattgggt tgggtgggca cagattttcc attcggttga 180
cgcccccttg gctccccctt gcagctgctg acttcattta tgatgggttg gccattctgt 240
ttgaaattca actatgcac aaagtactat ttggaacca actaagctgg ctgatctatt 300
caactatata tttattcctt gctggggatc tgaagcgta gttcaaattt tgctgttggg 360
ttgcatgatt gcagatgaat gatagcttgc aattggccaa tcagcttaag agtttttggg 420
ggcatgataa acggcatgat aaaccaccga agtac 455
```

<210> 11679

<211> 476
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-G2

<400> 11679

cgccctgccgg taccgggtccg aaattccccg gtcgacacgt actactaaac tttccctctg 60
 ccaactatca aaaatcttat atatattgtg ggtaaaaaca ctctcccagg agtgcaccca 120
 tccaccacc ggggtgctact ccgtgggtcac caacctgaag aaaaacatct tgtacacatc 180
 taccatcct cctcccatgg acggcgtgag atatgcatct cgcatcatca acgatcacga 240
 ctacgactac atacatatgt ggccctggcac gtaccgcagc ttcttagaat tttctgccgt 300
 gggaagctgt ccagcccagc cgaccgactg cacgtacgta cgggcacagc tagctgcacg 360
 tacgacgtat actggtatac ggacaacgca ataatgatat gaataaatat aaagtaaaca 420
 gaagataaag ttgtcttgaa gcagagcgga acacagcagc agcatttggg cgtttt 476

<210> 11680
 <211> 467
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-026-Q1-E1-G4

<400> 11680

taccgggtccg agnattcncg ggtcgacatc gagccagatg cgcattgtcaa gcaggcgatg 60
 aatgagatca atgcagctgc aaggatgagg gtggctgcaa acgagaaggc ggaggctgag 120
 aagattgtcc agatcaagcg tgccgagggg gaagcagagg ccaagtacct gtctggcctc 180
 ggtatcgccc gccagcgcca ggccattgtg gatggcctga gggacagcgt cctgggcttc 240
 tcagtcaatg tgctggcac cactgcaaag gacgtgatgg acatggtgct gatcacccag 300
 tactttgata ctatgaaaga ggctggcgcg tcctccaagt cctcggcggt gttcatcccc 360
 catggccctg gtgcggtgcg tgacatcgcc acgcagatcc gcgacggtct tcttcagggc 420
 cagtctgcct ctgacaacta agcagtttgc ttcgccggca tgaactt 467

<210> 11681
 <211> 246

<212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-G8

<400> 11681

gtaccggtcc tacattccgg ggccacatcg agccagatac gcatgtcaag caggcgatga 60
 atgagatcaa tgcagctgca aggatgaggg tggctgcaaa cgagaatgcg gaggctgaga 120
 agattgtcca gatcaagcgt gccgaggggtg aagcagaggc caagtacctg tctggcctcg 180
 gtatcgcccc ccagcgccag gccattgtgg atggcctgag ggacagcgtc ctgggcttct 240
 cagtca 246

<210> 11682
 <211> 455
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-H1

<400> 11682

acgcctggcg gtaccggtcc gaaattcccg ggtcgacagt tcaactctctg aaactgcaaa 60
 tggcagaagg tggagaagtc aacatgaaca acttcagcac tggcagatga acagaagaaa 120
 aactggcatt ctcaactggt ggaaccccag actatattgc tccagaagtt ctgctaaaga 180
 aaggatatgg aatggaatgc gattgggtgg ctttgggtgc aataatgtat gagatgcttg 240
 ttgggtatcc accattttat tccgatgatc caataaccac atgcagaaaag attgtgcact 300
 ggagaaacca tgtgaaattt ccagatgatt caaggctgtc tcctgaggca agagatctaa 360
 tctgccggtt attatgtgat gttgaccaca ggattgggtg tgcaagggtc gatcaaataa 420
 aggcccatcc ttgggtccgt ggagttgcat gggat 455

<210> 11683
 <211> 275
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-026-Q1-E1-H11

<400> 11683

gtccacaacg gcctgcaaga ccatgcagtt cctgttctca cagtcaagcc agacattgct 60

gttaggctga gctgaagagc acatgacgat gtgtgttgtg tctatggcgc cacagcagtt 120
 ggggaggccc tggagctttt cgaactttgc tttgatggtc gccatctcct cagggtcagg 180
 ccacttcaga tgactgattg cgtgatcctc caaggactcg atgaacttcc aagtgatgtt 240
 tgagattgct gagtgggttc ttccaaagcg attcc 275

<210> 11684
 <211> 459
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-026-Q1-E1-H3
 <400> 11684

accggtgcga tattcncggg acgaccatgg cgtcttccaa ctccggcggc atccccatca 60
 atgtggaaca ggattcggac ggctcggccc agagcacagc tgatatgact gcttttgtgc 120
 aaaatcttct agttcagatg caaaccaggt tccaaactat gtcagagaac atcattacaa 180
 agatagatga aatgggtgca agaatcgatg aattggagtt gagcataaat gacctcaagg 240
 ctgaaatggg cagcgatggt atgacccta cttaaagtga ggacgaagaa tcaaagccag 300
 cagacagctc tgcctgagtc aagcagaagt agcagaagca agtcgtatta gtcttggggt 360
 catgtcaata tcatcagcca ttcactacta acttcatgca tgttatgaga tgttattcgc 420
 actgttatat gcatttgaga tatgcagtac ctttcgatg 459

<210> 11685
 <211> 451
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-026-Q1-E1-H6
 <400> 11685

tcccggtcgc acccatcgct gacaagaaca cacataccaa acatcagcag caaacacgcg 60
 cgcacacacg cacacatc attagctagc gagctagccg cacgtcgac ggaaaagaaa 120
 gatcctcgat cgatgccaca ggagctgtag ctccatcgat catgaattca tgatcgctct 180
 ttctttcttt ctttctttca gtgcaatgca gcaacaaaaa gcacactgat ccgtccgctg 240

atccatccaa caaatTTTTg attgcgcaa aagcctaaag gtagcaaagg ctaataagct 300
agccgggatc gatgaaaggt atatctatcc ggcgtatgag actgttaaata atgcgccggg 360
tcgtcttcgt ctaccgctca cccatgtgca tgtgccggag ggaggagggt gccgggtctgg 420
atgcgagttt cttaatgccca tcggatgcaa a 451

<210> 11686
<211> 450
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-026-Q1-E1-H7
<400> 11686

accggtccaa gattcccggg tccacgcttc tagggtttct ggaatattgt ggtatttata 60
gagcaaagag gcggtccggg ggcacccgag gtgggcacaa ccaatcaggg cacgctaggg 120
cctcctggcg cgccctggtg ggttgtcccc tctcgcagac tccccccagg tgcaaccagg 180
gcccatctgc ttccttttgg ccaataaaaa atcatcgtga agtttcgtgg catttggact 240
ccgttcgata ttgatttcct gcgatgtaaa atacatggaa aaaacagcaa ctggcacttg 300
gcactatgtc aatagggttag taccagaaat gatataata gattataaaa catccaagat 360
tgataataaa acagcatgga acaatcaaaa attatagata cgttggagac atatcagcat 420
ccccaagctt aaccctact cgtcctcgag 450

<210> 11687
<211> 313
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-026-Q1-E1-H8
<400> 11687

ctcgcggtgt cacgcatctc cctatagtga gtcgtattac gcggtagtgt acatcaacgc 60
tgctaggatc acacccttag ctgaactggc caaccagga caacgacgtg ctcgagaacc 120
tcacggtcgc gtggcatgag cagtaaaagc actcggagtg gctatgcagg ctcggggagg 180
aacatttttt gcggctctca cacagctagt agttacatgt catttatatg gcgtttcagg 240
tcagttggcc acttcgggtg attttatgag tatactctca ctgagtcctc caattgtctc 300

aaaagaggga tca

313

<210> 11688
<211> 422
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-A6

<400> 11688

aattcccggg tcgactaccc acagtactcg gcggcagatg tggcaatagg agaagcaccc 60
atggatccca tcttctccag aaccaatagc cagatacctt cacatcaccc gtcaatcgcc 120
gtggatcttg ttgaagacga gaacgatagc agaccagcga tgccgccacg acgatgccgg 180
gaaacgatgg atggatgaga cagcacaggt aagcacctta ataccggtat ctgcaattct 240
gcatcgtttt tcagaaacag aactagcaat tctttccggg caccaataga agcatatcga 300
agtgttatag agcgtgcaat tgaaggagca tcaaaacttg ggaaacagtt gttttccaag 360
cagctgttgg cttaagcaag gaaatggcaa gtcgtttgcc gtgtttcagg aaaaatccga 420
gc 422

<210> 11689
<211> 366
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-B10

<400> 11689

ggtcgacgat aaccactaat cgggttccta tgaaagagaa aggccaata cagaatgaca 60
caagaccaag aaacagtgtt tgtatgtgcc tataaaagag agaccacta gtagagaatg 120
catctgttat ccatgcaatg cacagagata atgctcctgc tcacgcatgc attggtatgc 180
ataagaatgc tcctccaatc aatgaacgcg atgcgattga agtactggga aaaaagacat 240
cacacgtaat taagccaatc tggggctaata aataataaat caggactcct ccagtccgtg 300
gccctccggc cattttaaga tcttagtaat taaactaggg gaattcacgt gctagatttg 360
ttgcaa 366

<210> 11690

<211> 411
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-027-Q1-E1-B6

 <400> 11690

 aggtacaagt ctagaattcc cgggtcgacg ttaccgtcca tggcgatgat gattagcggg 60
 gttcttgatg tatataccaa gatgatggag actcgtccct aagtagccga aacaccttag 120
 gaaacggaaa aaccacaact caaaatctca aggacaaaag tcaaacgatg gtagtgtaat 180
 cgggtggtggt tttgtggaag ctcaatggga ttgcgaaaat gcaatgattg gttttgggac 240
 gcaatgcaga agtggagggt aagggtggtga actatgcacg gtgtcggaat tggaagcacg 300
 gtccctaagt agccgaaaca ccttaggaga cgcagctcac aacacaaaca aaattggggt 360
 aagttagggt ggcggaagtg tatggtgggt aagcctatac ggaagttatg g 411

<210> 11691
 <211> 353
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-027-Q1-E1-C11

 <400> 11691

 gtctagaagt cccgggtcga cgacgcaacc aatgctagga ttggaagact acaaaatgag 60
 gtggctcagt tggacatgga gaacatgagt gaggaagaca aaaaccaact ttccatcctt 120
 catatgaaaa atatccagga agagaatcca ggtatggtgg caaatcttat cttcaciaag 180
 gaacaagatc tcggtcttga agatctgaac aagctcttca gtgagctctc tcgggtcgaa 240
 aaagacatta gattccggct acctccattg catggtcgcg aagacaatat tgggtggcaca 300
 tgtgtggcac aagatctgca actaccaagt gttctaccgg cggatcattt ggg 353

<210> 11692
 <211> 440
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-027-Q1-E1-C5

 <400> 11692

ggtctggaac tcccgggtcg acttcggagc tgagactgca tctcgtccat ggcaaggtgt 60
 tgcgggtgat ccgcatgagg atttggcgag ttggcatgac aagattaggg aggtgattgt 120
 tagaactaat cttggcatat gtatctgcat gtgttttttt gttttgcatg tagctagtgt 180
 agtcatatcg tcggctgtac accggcaaga tgtacgtgtg atacgtacgt agacagcgag 240
 ccgtcggccc aagaacgtgc atgggtgagat gctattgtcg tgcgaggcgg cggaagtgcg 300
 agatgccgag tgccgtgtga agcagctgca caaggataag agccagcggc cagcaagagt 360
 ccagccgagt cgattagtaa gtctgttgtg gccttgagaa gaggtccagt attagatgtg 420
 gtcaagtttg ttagctgcat 440

<210> 11693
 <211> 331
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-027-Q1-E1-C6
 <400> 11693

gtctagaact cccgggtcga catagtacct gatgatgctt cacactctgt tgggcaagtc 60
 cctgtcgatg tgcgagacat tggggcggat ttctacacta gcaacctcca cgagtggttc 120
 ttttgcccc cggccgtggc tttcttacac acctgcaagg gtggcccgat aacctctcag 180
 ctccaccacc ctgttgtgtc acatgaatat ggcaatgggc tacctatgga cagtggatcg 240
 gattggggac acgggaatac agtggccaga tcgtccttcc tgaagctagt cacgttgtga 300
 accgattctg aaagtgggga ttgaggggat a 331

<210> 11694
 <211> 342
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-027-Q1-E1-C8
 <400> 11694

aggtccgga ctcccgggtc gacacggacc accaacgtgt gtcgctccag atcatcacca 60
 agccaggtgg gggacacgcc aacgctgttc ctggacatca tccagacgat cgggtgcatg 120
 gataacgacc acatacggga agagtaccag aaaggtggct gctgcgggtt tggcaaaggc 180

aacttctccg agctgttcaa gtccattgca ggattatgac aaatcccttg aaccctagca 240
atctgctgca gttcatgcat cataggatag aatctggaat tggaacctga tacgctgac 300
cactgcattc tatcatggtc tcatggagca tcaagaacgt tc 342

<210> 11695
<211> 317
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-027-Q1-E1-D11
<400> 11695

ccgggtcgac acacactttg gcaacatgaa gctgcccac gacaaagtcg gcgggtaccac 60
tcgcctcaag aaggacgacg acgacgagga ggagtgaagt gctgttactg aacatacaac 120
gatagtcggg cagggagcca gggaggatcc agctgaactc ttccctctag cttatggtag 180
ctttgttgat ggcacatcc gaacatcgtc cgtgttttta tgtttcggtg ctcagtgttc 240
ttcgtgggaa ctcacccagt gtgtattcct tccgtgttaa ctttgtcaaa tgcaaacaga 300
cctgagaata aattcca 317

<210> 11696
<211> 266
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-027-Q1-E1-D4
<400> 11696

cggtcgaca cgtatggaga taacgtctat ggatacagtc ctatttataa cgagaacgag 60
tggtcaacga gtggtgacgt gtacaacgga ggagtcaccg gattggcaat ttgggaggta 120
actctcgccg gatttcttgc cggaagtgtt cttcttgtgt acaacacaag tgctttggct 180
cagtaaattc taaagttgtt atcgcatctg tacacatgtt tctacaaatg tgctgggtgt 240
gttcccggtc tcgctaaggt ggtcaa 266

<210> 11697
<211> 450
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-D5

<400> 11697

gccgccaggt acaggtctag aattcccggg tcgacgaaa cgtcttctcc cactgaacga 60
acatcctccc cggaagggt gaaacaaatc tcagaaatgc gagcaccagt gtccggtctg 120
ggacttgaac catggtgggt tgataccacc ttgctactcg ctgtagcgtg gtcgaaccac 180
cttctctttc cccgtggttc actcgaatga accgacatgt cttagttgca gcgccggctc 240
caaaatatat gcacggtacg aggatcatgt cgcgctgttt gagcaaggga ggcacggtgg 300
cttggttttt ggaaattttg agccgatctt ctgggggaga ttagtgtgct ttccaaagtg 360
ggattccaga cgataacaca atgctaagac aggggaaagg attcccctct tagcctgcaa 420
tagtgcgctc aggggtagtg cgagcccaat 450

<210> 11698

<211> 309

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-D9

<400> 11698

gggtcgacca tcaacaccag tctgatgtgg agtaagtcgg ctccccgtgt gtccatcgac 60
gctcttttga ctccacacga ggcacgcgg tcgcatgaga aattcgtcag agccatcatg 120
gtggagttgc cgcccactga gatagcagca tcgcgtcaca tgccagctca atcgcaatcg 180
cgatacgagt gttgcacatc ccattcacta cccttggtgtg ttgtgtgccc atacgcactc 240
tctatacgat ggaggcttac gtaggcgtgc agtcgacgtg atatctcttc taaagtgtca 300
cgtaaattc 309

<210> 11699

<211> 327

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-E10

<400> 11699

caggtctaga actcgcggtg cgacgaaaat cactaccagt ctatgtagaa tccagaacca 60

ccagatccaa tctagacacc gtcattggagg ggttcaccac ttccattggt gcctctccta 120
 tgatgcgtga gtagttcggt gtagacctac gggccgtag ttagtagcta gatggcttcc 180
 tctctctctt gagtatcact acaatgggtct ctgggagatc catatgatgt aagccttttt 240
 gtgggtgtgtt tgttgggata cgatgaactt tgagtttacg atcagatcca tgttttttagc 300
 gatgagagtt agttgaatcc tcgttga 327

<210> 11700
 <211> 350
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-027-Q1-E1-E7
 <400> 11700

aggtacaggt ctagaattcc cgggtcgact ccctgcgga atttggaac atttggtat 60
 ttatagagca aagaggcggg ctgggggcac tcgaggtggg cacaaccag cagggtgcac 120
 cagggcctcc tggcgcgccc cgggtgggtt tctctctctc ggcaactccc ccaggtgcaa 180
 ccacggccca tctgcttctt tttggcccat aaaaaatcat cattaagttt cgtgccactt 240
 gtactccggt tgctattgat ttctgcgat gtaaaaaaca tgggagatag acgaactggc 300
 attgggcact atgtcaatag gttagtagca tcacatgata tctaagtact 350

<210> 11701
 <211> 424
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-027-Q1-E1-E9
 <400> 11701

ccgggtcgac tgattttata atatgcgaca gtcatttttt tagtataaaa aataacggag 60
 ggagtagaaa acaaggggta cgactatcct tgtggcaatg ctatgtctgg ctggctacat 120
 gcatgcatgc aatgtttcgg catgtcatgt atgggccatg gatgggtcac acttacatca 180
 tcgttgaact ttcgagtttg atggatatga gtacgcagat gagaaatgaa agatcacata 240
 catttgata agtctttatt gattgtatgg acataaaata atagaataaa aatgtatttg 300
 tacaattggg attgcccatt ataggaggaa aacaaggcaa acaactttac acaagtttca 360

ccttttgtaa cacacaagta ataaacatat actccctcgg tccggaaata cttgtccgag 420
 aaat 424

<210> 11702
 <211> 411
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-027-Q1-E1-F1
 <400> 11702

ggctctagaat taccgggtcc acgacggtac acgaatgtat ttgtatcaac acggtattga 60
 cacacaacta tcatgttttc agaacaccgg gtgcatatca caagtgcatt gttacaacaa 120
 gcttacaaaa cggtgcataa ggctttaccc atgttttagac atacaacaca ctcacattgg 180
 ctcaacaaca tctaactgta ctagctctaa gaactaatta caaccctgtg tccagcagggc 240
 acacatcaac ggctctgaca aatccagggg ttcaacaccc atgtgtgtca aatgcaagca 300
 cagctgattg catcatgctt ataacttcat atcggcgcggt ttggacactt tattctccca 360
 gatgaacaac atctgttgct gttcctaaaa ttcgtgtgtc aaatctgagg g 411

<210> 11703
 <211> 344
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-027-Q1-E1-F11
 <400> 11703

gtccagaatt cccgggtcga ctttaattgg gatgaaagac caaacacgtg cccagttacg 60
 agtcaaaaat gggctttag ggggtggactt gcatgtcaag ggtgggcttg caactgggat 120
 aaaagtggtc gggtcgcag ttacgtgttg aggatggagt tacaactggg acaaaaatgg 180
 gccaggccaa gttgcgtatg aacagtgcac tcacaaaaaa atcgggcttc ttacacatta 240
 cggttagact tgccagaaaa aggttggtgc ctgtcattgg agagtttaaa agcatattca 300
 tccgcgggggt tactctgcgc caacgacaaa gaggaatgag acag 344

<210> 11704
 <211> 404
 <212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-027-Q1-E1-F3

<400> 11704

```
cgggtcgaca gatccggtga gctctcgggtg tccatcagca acgcgagcga ccaagagagg   60
gaatggggttg aggaagacca gcctgggtgta tatattacca tccggggcttt gcctgggtggc  120
atcagagaac tccgccgtgt tcgattcagc cgagagaagt tcagcgagat gcacgctagg   180
ctatgggtggg aagagaaccg agcgaggata catgaacagt acctctgaga caggagaaga   240
agaagcacag atgagaacaa taccggggac ttcgccgttg acatgagcca gccgtccatc   300
catgttgtac atttgcagtt tgagctaaca ttactcgctc tgggcagcgt ttgtgaggtg   360
aaggcctcgt cttgagaaac tgaactatag tgatctgcta ggct                               404
```

<210> 11705

<211> 296

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-027-Q1-E1-F5

<400> 11705

```
aggcacaggt ctagaactcc cgggtcgacg tccagcacia gatagccgcc atctcatcga   60
aagacgggac acctttgctt ctatcaagtg gtatcagatt ttcagggttg tcaatgagat  120
tttacagttt ttcatagttt agatcgagtc tgttcttcgt acctacagtc cacgaaaaag  180
ccacacacag cagagatggc tagttcatcc tatccagacc agtctgagcc tttgcataat  240
attttctgta tgtgctttgt tgaatttgcg gttgcatcgc cgtgtcaagt tgctgg       296
```

<210> 11706

<211> 303

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-027-Q1-E1-F7

<400> 11706

```
gtctagaact cccgggtcga ctgccaccac aacgatatct atcatcacat cgaaagacgg   60
gacacctttg cctctatcaa gtggtatcag atttcagggt tgctcgggtga gattttacag  120
```

tttttcgtag ttttagatcga gtctgttctt catacctata gtccacgaaa aagccataaa 180
aattagggtt agttcatccc atccgaacca atctgagcct tgcataaacc tttctgtatt 240
ttccttggtg aatttgcggt tgcacgtcc tgtccagttg ctggtcggaa cgtcgagtcg 300
ttt 303

<210> 11707
<211> 341
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-027-Q1-E1-F8
<400> 11707

gtctagaagt cccgggtcga ctggaaggcg aactcttcga cggatgtcct agggtaagtt 60
acttgggaca ggtccgtgac cctaccctag gtacataacc ccatcaacga cgcgccagga 120
aaactaacgc tagtttagtc ccacctcgtc gatcgaaggc gacgatgacc agtttatata 180
cccagctccc gtcgtcagat tgaactcctc tggctacta ccccgtcgat gctgccctgt 240
tgggcctggt ttccacggcg tgctctgaaa cgctgttgt agtcgcccgg tgggcttgat 300
aacaatggtc ttattaagac acgctgtgga gacggacggg c 341

<210> 11708
<211> 351
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-027-Q1-E1-G12
<400> 11708

ctcgtgggtc gacaccactc cctatactga gtcgtaataa tcccgcgcgc actctaattgc 60
tgcgttcac cccgagcccc actacaccac gccaccgata cccgtggtca ttgttctagt 120
agatggaaca ctgttcacc tcaggaccac tccagccagc acctgtcca gaatgatggc 180
cctataaggg ggaacaacat cgaagacatc gacatcgttt tatccgggga cccacatcta 240
cgtgacgaga caacaacgat catgcctcca catcgaaaca atgtcagcga ttctgtttga 300
taaatggaat atattaatat tacacagata ccacttagac ccagcctctc c 351

<210> 11709

<211> 370
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-027-Q1-E1-G3
 <400> 11709

ggtctagaac tcccgggtcg acaagaatga tgcacagctc caggcgatga gtgagcagtg 60
 caagttcatg gctctgaacc gtccaaacta gcggaagaca gatacaccag ataagaaacc 120
 tgctcttgtc caactgatgt cacttacagt tacattgccg cggcagtga aagaagaaga 180
 agttatatcc ctgggggtcc cgaataaccg acgatgatgc catgttctctg ggtccgtgat 240
 tcgtggtgca aacccaatcg tgaattgttg ttaccttaga tgtggtgtgt ccaaattgca 300
 gccatgacac agatttgttg tatcttgaat gtgtgtgtaa atgctgggcg catttgcttg 360
 gttttctgtga 370

<210> 11710
 <211> 396
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-027-Q1-E1-G6
 <400> 11710

aggtctagaa ctcccgggtc gaccggctgc gataagatga ctcatgggga agaagaaaat 60
 ggggtgaagaa aatatccaaa aggctgtcaa gattgccata gatgctgcag aagctgctct 120
 ttctgaagga aaaaccttct gtgttactca tgctgatgtg ggtcttgaca ccaactgctgt 180
 ccgggaagca gttgtcaaag ccatgaaccg tttcaagggt ttgccgataa tggatttcag 240
 cacagatgag gcatcaaaca aggctgttat ttatgccggc gtacctccgg atgcacccaa 300
 tggcttcaag gtgttggtgact ggcttacacc ttcaatcgca tcaactcaatg gaaaatgagg 360
 cggcggcaag aatggtctcg ccaggggcca gggaag 396

<210> 11711
 <211> 427
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-027-Q1-E1-G8

<400> 11711

aggtacaggt ctagaagtcc cgggtcgaca aaagcgaaga caaacaggcc caggccaaca 60
acatgataca caacaaacaa acaacaacg acaagcgcg cgggggatag agtgcttaca 120
cgaaaattat gaaactaaat caaaagatgc caaacttagc tgatacatca tttagaatag 180
ttgtggattt aaaaatatac tatgaaattg taaaaatcaa ggattttacg acaaaaaagg 240
taaacaaaac caaaagaaaa attgagaaaa acaaaataaa gtgagtgtag agagtagcga 300
acaggaaata tctggaaaaa aaatgctcgc cgctaactct ttcaattatt ccccgagacc 360
tacagagaac aagcaaaaag aggctactc tctacataga cacacacgga agacaagccc 420
agttcag 427

<210> 11712

<211> 343

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-027-Q1-E1-H3

<400> 11712

cgcgcgaact ctcaccggtg ttgaaaccat tatttacctt cctcaaaaca gccaccatac 60
ctacctatta tggcatttcc atggccattc tgagatatat tgccattcaa cattccaccg 120
ttccgtttat tatgacacat ttcattcattg tcatattgct ctttgcata tcatgtagtt 180
gacatcgtat ttgtggcgaa gccaccttca taattttcat acatgtcgtt cttgattcat 240
tgcatatccc ggtacaccgc cggaggcatt cacatacaat catatcttgt tctaactttg 300
agttgtaatt tttgagttgt aaatccctaa gagtgtgatg atc 343

<210> 11713

<211> 325

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-A1

<400> 11713

gggtcgacta ctgcacacac tgcattgata tcaatctgac tactgcacac agtgcattgc 60
agcttctacg ccggtctcgt catcagatta tgtttatgat cgagtgtatc gtgtccgcct 120

tccacatatg agtcgtttcc atagatatcc gaatcgggat aattgtatca atgccttctt 180
tatgtgatat atgcgtgtta ttgagcgtgt ggactgtatg ggcgtctata tccatgatca 240
atataacttc caacttctgc ttcgaccaag agaaaggagg gagaggagga gaaaaaagcg 300
ggcgtcttag aggatccaag cttac 325

<210> 11714
<211> 440
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-A11

<400> 11714

ctcatgggtc gacactacac cctatactga gtcgtattat gaaaagaatc cagaacagaa 60
gcgtgtgcct gtttcaattg atgtcccaga tcctgacttc catgattttg ataaggatcg 120
cacagagaga gctttttata gcgaccaagt atgggctaca tatgacagtg aggatggaat 180
gcctcgtcta tatgcaatgg tgcagaaagt tctttcaatg agacctttca gaatccgcat 240
gagtttcttc aattccaaat ccaatattga actgtcgcca ataaactggg ttgcctctgg 300
tttccagaaa acatgtggcg attttagggg tggaaggtag cagattacgg aaacagtcaa 360
catattttcg cacaaagtca gctggactaa agggccccgt gggattatca gaattattcc 420
tcagaaaggt gatacatggg 440

<210> 11715
<211> 396
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-A3

<400> 11715

atagtgagtc gtattagagg attgggagcg cttgatgtgt cggcgggttg ggcaagctat 60
aggccgataa caccggcgca tggccccacg atgatgaaga agtcgtgtcg ccatgacatg 120
agttctcttc cgatgcgtgg tggggagatg ggggtctatg ctgggaaggg agattgggga 180
ctggcgggta gagctcaggc aagacaaaga acggtggcaa ggtcaggagg acgaatttgg 240
ggatgtgagg ccagccggga tttaccggac atgggggtgga gcggtgacct ccacttggat 300

ctaggagacg actagggagc aacttttttg tagtctcata cgatgggtgga tggttgcccc 360
ggacgggagt gtacagtagc cttcgcaaat gcacca 396

<210> 11716
<211> 199
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-028-Q1-E1-A5
<400> 11716

tcacaactca ctaaagtgag tcgtattaaa cgtcagacaa gagagccaag gataatggaa 60
ccaaacgaga cacacaataa agaaaaggaa atagaaatga aacataaaac ccacgaatcg 120
ggttcagaaa gaacaccatc aagagtgaaa acagaaccag aacctaagac taaaaatgaa 180
aggaacagaa gacattgaa 199

<210> 11717
<211> 264
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-028-Q1-E1-A6
<400> 11717

tcgtaggtcg tcgctacacc ctatactgag tcgtagtagc aaaatggtaa agatcgacgc 60
agagggaaaa atattactgc tccgtacagt gcggtgtacg gacgagagcc gtggtgcaat 120
gcaacagcag cggcgtgccg cctggctctt ctttttgtcc tggagatgtg cttattgcta 180
gactctgaca gatgaattgc gtttctctcc gcaagtaatt tgagtccttc agcatgaaag 240
tgatcgaggc accgacttcg gccg 264

<210> 11718
<211> 422
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-028-Q1-E1-A7
<400> 11718

attcgcgggt cgactaggaa agattcataa tcagcatgga aggttcttat catggataag 60

tttacgggtca agataatgtc ctactcatgt aagatggcag acatcacaga agaagggggtt 120
tcattgggttg aagatctata caaacggaga cagccattgc cttcactgga tgctatatat 180
ttcatccaac caactaaaga aaatgttggtt atgttcctct ctgacatgtc aggaagaagc 240
ccgttatata agaaggcgta tgtgttttttc agttctccca tacagaaaga cttagttgct 300
caaataaaaa gggattcaag tatattacct cgtattgggtg cacttagtga gatgaatttg 360
gagtacttcc ctattgattc ccagcagatg gtaatttgac ttgaagcctc acgtttgctc 420
ag 422

<210> 11719
<211> 99
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-028-Q1-E1-B1
<400> 11719

atagtgagtc gtattatacg aatcggcatg ccatgcaagc ctgccatcac gatgtgtctg 60
acattgagtg tacgtatgac atagagtgga gcatgtcag 99

<210> 11720
<211> 429
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-028-Q1-E1-B12
<400> 11720

cgcgtaggac gtcgcaacac gctatagtga gtcgtattac cctgcgcgag ttcgggcagc 60
ggcccatgtt ccaggcggac gtggactcgg gcaacttcga ccacctgcc acggagctca 120
ggcccatgag caagatcatc taggaactcg agccagcagt cgccgcagga ccttggggcga 180
gtagagttgc tctgaaaaga cttgtagatt tcagtttcag gccggtttga ggttgacttg 240
gcgagaagtt gcagggttga ggttcagttt caggctattc cacttagtag acatgtaata 300
ggaggatgta cgcagtcaag ttgtggtgat ggttgagccg agcgtgctga agtatttagt 360
cggccagatg gtttgctagc caggcaggac agagcagaag ccatttgaac taggcatgtg 420
agtgaaca 429

<210> 11721
 <211> 434
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-028-Q1-E1-B7

 <400> 11721

 attcgcgggt cgacgccacc gaggacgagc tcttcaagct caccaccaag gaaggcaagc 60
 tcaccgtgga gcgcgagaag atcaagatcg agatgcagcc cttctcccc gtcgtccagt 120
 tcgagcagga ccccgctcag atcctcgacg ctctcctccc gctctacctc aacagccaga 180
 tcctgctgct cctccaggag tcgctcgcta gcgagctcgc cgccaggatg agcgccatga 240
 gcagcgccac agacaatgcc atcgacctcc ggaaaaatct ctccatggtc tacaaccgcc 300
 gacgccaggc taagatcacc ggagagatcc ttgagatcgt cgctggcgcc gacgcctgt 360
 ccggctgatt cctcctcgcc acctgagctg agccgccgct gttatatata actctttgcc 420
 tccttttctc ctct 434

<210> 11722
 <211> 421
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-028-Q1-E1-C10

 <400> 11722

 tcgtgggtcg acattgtgct ctacagtgag tcgtattagt ttatcgagag ttttctacta 60
 ttcttcagac tgaaggtagc cttgattttg cctccaccat ggttcaggca ttgaatttga 120
 ttttgctcac atctactgaa cttgaggagc tgcggtctct tcttaaaaag tcattgggtg 180
 atacttggtg gaaggactta tttctatctt tatacgcttc ttggtgccac tctccaatgg 240
 ctaccatcag tttgtgctta cttgctcagg catacaatca tgcgagttct gttattcagt 300
 ctctgggaga agaagacata aatgtgaagt ttctggtgca gcttgataaa ttgatccgtc 360
 tattagagac tccagtatct gcttacttgc gtttacagct tcttgagcct ggaaaacaca 420
 c 421

<210> 11723

<211> 436
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-028-Q1-E1-C12

 <400> 11723

 tcgtaggacg tcgctatacc ctatagtgag tcgtatgtat aactcaatga tggatatata 60
 ctcccttatac atgtccctca atttcaccca aattgagata aaaactgcga actttgccaa 120
 ctcatgggga gatggggtgc tagtgatggg ctatgggtctt gtacagacca aagagtacag 180
 caaccaaagg aaatttatcc agatgttttt ccttgccgct catgagaaag gttactttgt 240
 gctcaatgat tatttccact ttgttgacca agaacaagtg caacctgcac acgtgagagc 300
 tcacgaagcc tttagacca acatggcatc caacacagtc caaacaagtg cggagtacat 360
 tcatgaagaa agtcaaaca tgcaagctgt tccagtaaca tctgaagaaa attatgctgt 420
 tgacagttac acttac 436

<210> 11724
 <211> 401
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-028-Q1-E1-D11

 <400> 11724

 actccacact atagttagtc gtattagcaa gttcatacca aaagatcgtt aacaacaata 60
 ccaacttggtg gatgacaagg tagtacaact accaatacca aactaactta taatcttttt 120
 actcctggcc ctagtgttcg tctggtagaa aatctttagg aggaccaact cccgctcctt 180
 ctcttgctcc agatccccga ggtggtagtg gtgcatcacc cagttgggtcc tctgctggtg 240
 tgcagcacca gaaccttttt tgctgcccgt ctgccggccg ttgaccatca tcggcaatgt 300
 attgcctgtc ttgtgccaca tcgctgcat gccgcactcc gactgtatct gtgacacgtc 360
 caactgcccc ttttgaatgc cctggaattg cgttgaaga a 401

<210> 11725
 <211> 342
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-D12

<400> 11725

ccctatagtg agtcgtatta tatagatact taccagaaat taattaaatc ctacacttaa 60
aagacctagc cgcgaaattc tacagcaatc ttatggagaa ctactaagat agaggatgat 120
gttcttagaa agaaagtcct tataagcata atttcaaaca atatgaagat caacattaat 180
ccactgggtt acatatacct cgtagcagca gtttagagta gaccgggttt gagaaatgaa 240
ccttttttgg atagttttca cttttattag ttttaggttt accttttctt ttttgtctcc 300
cagtatagcg taattttaca agtttggttt tcatttcttt tc 342

<210> 11726

<211> 442

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-E1

<400> 11726

gtccgaaatt accgggtcga cgactgatag ttgcaattgc aagcatttat ttggtccaga 60
gaaaacaaca tggtcagtat cttcaaaagc caciaagcag ttggctatca ctcgttgtcc 120
gaagatcttg tgcattcatt tgttacgtac ttcgattagt tttgatggtg aactcgtaaa 180
gogtcaggga cacgtttctt ttcttttaca tctcaattta tccccatttg caggaggcac 240
attcaccact ggacagggac ctggaccttc agctatgaac gtgcaaggat atgacacgcc 300
gtctctccaa ttctatcggc aactaaatgc agacatgcc attaatatgt ttctactgg 360
tgggaaactca tcaagtcagg cacctaagga tcaagtagca aatgggtggtg tccagtcact 420
taatgaggga aatgctgatg tg 442

<210> 11727

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-E11

<400> 11727

taccggtcta gaattcccgg gtcgacgacg gccatccacc agccggtcgc ctacaccata 60

tggagatgat ccacggtgcc atgccgctgg ccggcatcgt gaaccatctg gcatagctgc 120
 tggctgctcg cgcgcatcac cgccatgggt ctggagtggg cacttttgca attattagtg 180
 taggtgctta ggcaaatgct taggtgcgta cgatgtggta gatgcattgg aatggagggg 240
 tgcctttata tgagtgcaaa ctgtgttgca ttcacatcgt gctgcctctc ttttcccagt 300
 cctcccatta cttcccttat gcattcgcat gatgctaatt gaaggaggat gcatcattgg 360
 tcgttcaaca tttcaggaac agctaccctc tccctcatct gcattatagc tgtattggga 420
 actgcgtcgc ccgctgtcaa atcaaatagt a 451

<210> 11728
 <211> 457
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-028-Q1-E1-E2
 <400> 11728

cggtccagaa ttcccgggtc gactcaaagc ttggagtgtc atagcagcat caagattctg 60
 ttgataatct acaaagtgtt gtttcagaag aacaatcagg tagggaggaa atctcagcgg 120
 tttcagggga cttgaatgc ttggtagaag ctgggtcatga tggaaacgat agaggtctta 180
 ctgggtacatc aaaagatgag tttgaatcat cagggcatgt tgcacctgac aattcttcag 240
 ctgggtttatt tgatgaaaat ggtccaaacg tttcctcagt aaatcacgag tggccagtca 300
 aggaagatga tacgcctgtt ttagaagacg agcctggaac taattctggg cctcaagaaa 360
 aagagatagc acctctaaac aatttaagca gcgatataat ttctactacg gttgctgata 420
 catccaataa atcaatggat aaacttgact gttcagg 457

<210> 11729
 <211> 444
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-028-Q1-E1-F10
 <400> 11729

gtctagaact cgcgggtcga ccggttcata tataatcata cgtgagaaca aatttatgct 60
 tgttttaga agtatatata ctctttctga gattgtagca tactagcatg tgattatggg 120

atgagagaga gagtcttggg cgggtgataat tgtattaatg aggtttatgt tgcctattaa 180
 atcacccgaca acgcaagtca tatccggcca gccgagaaac acataactatt tccgtcgtga 240
 gatttttccc gtatatcatg cacgtctaaa gctgggcaga tcgaggctac aagttaaatt 300
 gctttttttt cctctttttt ctaattacca gtgcaaatac atgagtgtta gtactctttc 360
 cgtttcaaat tgtaattcac gtattagatt ctgttgggtt tttttacttt aattggtttc 420
 accttttttt tttcactcca gaca 444

<210> 11730
 <211> 373
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-F12

<400> 11730

ctcgtaggtc gacacgattc cctatagtga gtcgtaatag gcaactcctg ccgtcgtatgc 60
 tctatgggtg tagcacttcg gtgcgtctcc cccgccctcg cggctctgcat gagttttcat 120
 gaacaacggg cagcagtcac accatgacac ggatgtgaca gaataacatg ttggtcgtag 180
 caaaaagcaa tggcggttgc aacacaaaaca ctgtcggagt cgcagctcat catgaatgga 240
 aattgccagt catagcaaaa attgacgaca attgcagcag aatcatcatc gtcgccgtga 300
 atggctgtag cagaataatt caccggatgt agcaaaaatc cacgacgggt gcaacagaag 360
 aaaaatcatc acc 373

<210> 11731
 <211> 414
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-F9

<400> 11731

acgctgccag taccggtcta gaattcacgg gtcgacgcct aaaaatgaag ttcttcgact 60
 gaagactttc tgaagacttt gaaagtgaag aaattgggtg gaccttgaag acttgggtatt 120
 agttcgagga acatgaagcg tgaagacttt tgtttgcgta gtttcatttt ctctttttga 180
 gtcataggag acaacgtact gttaaagggg gtcgaggaaa tactaaggaa aaatttccaa 240

gtgatgctca actcaaaatc gtacacctag caatcccttc gagtgaagcc attagaaatc 300
tcatacagtt cagtcaatctt cttcagttac agagacggag ttcttctggg ctctgaggaa 360
tttgtcctga ctgaggagtt acgagttcag cagtgcggat tgcttacaca gtga 414

<210> 11732
<211> 426
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-G1

<400> 11732

gggtcgaccg ggtgttatt ctttcttgcg ctgttatcgc tatttttact gtggcgggat 60
ttagagcggc gcctccttcg tcgcttttgt tgctgcttga ggggattatc ctctgttgca 120
tccttcctgt cctcgccgtt gttttctttt ggtgtatcca ccatatatat atatcgtatg 180
atgaggtggc tgtccagcgc cccgtgggcg gtggttctcg ttcgtctcca gcattgtcgt 240
ccataccgtc gatgtcttcg gagtcaaagt cgagcgtgtc ggttaagtca tcgacagtgg 300
ctattaaaag ggtggtgggt agggaaacgaa tttcctcgtc gtccgcttcc cactcaagcc 360
ggacatagtt cggccaagag tctcctgaca gagagagaga cctcaatgaa tttagtacat 420
cgccca 426

<210> 11733
<211> 399
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-G12

<400> 11733

aggacgtcgt aacaccctat agtgagtcgt ataaatcgaa agacgggaca cctttgcctc 60
tatcaagtgg tatcagatctt ccagggttgc cggtagagatt ttacagtttt tcgtagttta 120
gatcgagtct gttcttcata cctatagtcc acgaaaaagc caaaaaaaaaa ttaggggttag 180
ttcatcccat ccgaaccaat ctgagccttg cataatcttt tctgtatttg ctttgttgaa 240
tttgcgggttg catcgtcgtg ttcagttgct ggtcttagcg tctagtcttt tagagtttcg 300
agttctgttc acaagttgct acgcccgcgc cgcaccatca tcatcgccct gccatctacc 360

agtaccgctt cgaatccgta tccatagacc accacaact

399

<210> 11734

<211> 426

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-G8

<400> 11734

tcgtaggtcg acattatact ctacagtgag tcgtattagt ttatcgagag ttttctacta 60

ttcttcatac tgaacgtgac cttgattttg cctccaccat ggttcaggca ttgaatttga 120

ttttgtcac atctactgaa cttgccgagc tgcggtctct tcttaaacag tcattggtgg 180

atacttgtgg gaaggactta tttctatctt tatacgcttc ttggtgccac tctccaatgg 240

ctaccatcag tttgtgctta cttgctcaag catacaatca tgcgagttct gttattcagt 300

ctctgggaga agaagacata aatgtgaagt ttctggtgca gcttgataaa ttgatccgtc 360

tattagagac tccagtattt gcttacttgc gtttacagca tcatgagcct ggataacaca 420

cgtggc 426

<210> 11735

<211> 361

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-H1

<400> 11735

gggtcgacag catcacggaa actaaatcta aggattttac caactccgag aggggcctga 60

actcgtaaac ttgtgtgtac aacctcgccg tagctagggc cttgtctcct catacatacc 120

ccctactctt tctgtcagac ttagtaccat gactgcatgg tcggggcatc atgggtacat 180

atgtgtgtga gataactcaa ttatcatggt atgtgtgtat gtaggaactc agcagtgaac 240

ttgcaccggt tcatgttctt cacatttgtt atctggtcct gcataattgc ggaaaaaatg 300

aaggaagggc gtaacagaac aagcggggccg ctctaaaggg tcaaggctta cgtacgcttg 360

a 361

<210> 11736

<211> 361
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-H10

<400> 11736

ctcatagtac gacactacac cctatagtga gtcgtattag acacggtgtg gaacttctca 60
tggaagcttc ttgcaaggat atttaatctt ttgaataatt cttccggtat cgtaaattgg 120
atcccttgca gttatgggtc tgaccatatt tcctccttga tcacatttac tgggtaagtt 180
aaaattactt atcctcttca aatcatttcc cctgtccaac ctctactccg atttaccttc 240
tggcattaca cctagtactt gatactggga agctttatac cccatcacat cattcctagc 300
ctgatcagct atatttttat catgtcaact ttttaactgg gccacctggt ccttatgccg 360
g 361

<210> 11737
<211> 418
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-H12

<400> 11737

gggtcgacgc tgcgacaaaa cgacagacgg gggagtccga gcaagaatga gcatcgatct 60
agtccttttg gggatacaag caaggagaaa gctgctgctg cctcgagcaa cctagctaag 120
ctgaaagacc tgtacggcga cgtaactgag aataaggatg acagtgatgc caggtggctt 180
caccatgatt catgtgccga ggaggttatc aggttgggag gccctacgtg gagataaatt 240
tgaaccgccg actctgtcat caaagtcatg ttactccacc gtttgatcta ccggcttctg 300
cattggcatt agtgagagtt tagtctttgt aaacacttgt actttatggt gggtcacaa 360
tccatgtcct tcggacgttc agtcagtcta ccagattcat caacacaacg ttatcatg 418

<210> 11738
<211> 335
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-H5

<400> 11738

taccgagtcc agaattcgcg ggtcgacgtg agcaagctga tctggacacc gtacaaggag 60
caaggctaag caaagcacat ctgccatgcg gccatgccat gtccaattag ataagctgac 120
caatcgagtc gtgtatatatt taggaactcc ttccttcccc gtccctcgtg cagtgactct 180
actagtctct tttttccgaa ctgtggctgt agtgggtcttg tgtaacatca gattgttctg 240
tctctcagca cgttggttgc caagctttcc gattaataac tatgtcacgg ttctgtattt 300
gtggtcttcc tgctcatata attggatgga gaagc 335

<210> 11739

<211> 395

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-028-Q1-E1-H9

<400> 11739

ctcgcggttc gacataacac cctatatattga gtcgtatgat actacctggc atacttctgg 60
atgaacaaca ggatgactag agatgctctc gggatcaagg ggggaacagt tggcgagtgg 120
gtgagatgca aacaagaact cccctacaca caggacatgc caagcagcat accagtacca 180
tcttaatctc accacgagag gttaccgtgc actcgtatac agcggagacc atgatctcca 240
ggtgcctcag ctcagcaocg aggcgtggat cagatctttg aacttctcca tcggcgatga 300
ctggagggca tggcatctcg atggcgaggc tgcaggattt accagcacat atgcaaataa 360
cttgagcttt gcaacagtaa aggggtggagg tcaga 395

<210> 11740

<211> 282

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-B6

<400> 11740

tcataacacc ctatagttag tcgtattatt cgatgagagg cgtgaagata caggggacag 60
tggtttgccc cagacgagtg ttcacagtca cttcctgtga gaatatatta tggtcgggaa 120
ttaagtcagc tacttaccgt ttatgggatg tgcgtgaag gttggtcaca ttttgggtgt 180

aatatgtact tgcataaact aaatcatgac tcatttttaa tcatcagctt tagaccatat 240
 caatgtaggg tatatatgct acagcgatcg tgctacagga tg 282

<210> 11741
 <211> 309
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-C4

<400> 11741

gggtcgactc cttccaggga agaaagaaag attacattat tctgtcctgg tgtaagaagc 60
 aatgacaaca agggatcggg ttcccttaag gatcaacgca ggttaaagtgc tgcattaact 120
 cttgctaggt atggaatagt cgttcttgga aaccctaaag ttctaagcaa gcagcctctt 180
 tggaatagtt tgttgacaca ttacaaggag catgattgct tggtaaaagg acctttgaac 240
 aatttgaacc agagtatggg gcaatttcag aaaccaaaaa agatctacaa tgatcgaaaa 300
 ctgtacctg 309

<210> 11742
 <211> 362
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-C8

<400> 11742

attcgcgggt cgacggtgat ggccagatca actatgagga gtttgtcaag gtcatgatgg 60
 ccaaagtagc acccaaccgt gctcccaaga caggaggaga attgtgcatt gcatattagt 120
 ttaagatgca actcttattt gatcgatttc cagttaagca tcctacctag ctgtagctgc 180
 taaaacggat cggacgacgc aattcctgct atgttctcca gtgtgtttcc agacctcttg 240
 tgttttatgt gaacttgtgt cctccctggg gtatcctgat tgctgttgcg cccgtttgta 300
 gtatattttt tcatcaactt ctgcttgact cttctagtat caatggaaag ctgggtgttc 360
 gc 362

<210> 11743
 <211> 300
 <212> DNA

aattcctaaa tagcaacatg caatTTTTat ttaatgcgcc aaccaatgaa aatgttagca 120
 tgcaaaatga aaattaatga tcatgaagat gaggaactta ttccacgcat gatgacctat 180
 atatttggaa tactatatTTT cgtttagacgc tctatgcacTc tggacggaag gagtactcca 240
 atacatgagt cgttcagagt cccttgaagt ccgaaatgga gccaacggta atcgcacggc 300
 gcgcgccccat cataccccacc cagccacaa cggctgcgtg tgcgccttgg ccctggcagt 360
 gggatgaagc ttaacattta tgatggatcg ctctgcgtc gc 402

<210> 11746
 <211> 439
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-029-Q1-E1-F8
 <400> 11746

cctgccgtac cggTccagaa ttcccgggtc gacctgccca cgaaagccac tgctacttag 60
 ccgccattcg gtgggcccgc gccctgagtc gaggaggtgg acgtcgtcga tggatgcata 120
 tcttcttctt gctcctgta accagcactg catcacctcg tggccttaat gttttattag 180
 tataggagta tatggcatTT ttattccagt agtaacgttt tctctgtgag gtggggcgca 240
 gttgagcaaa ccgaccatcg gcaaatcccc accccgccca ccgggcgctcg gctgagttta 300
 gaattagaag agagaaacga gggagaagag ctagctgtag cacagacgct gttgtcagat 360
 gggactcgcg ttgatagaat aggagtacag agcactcgta cctctttttt gggggataaa 420
 gcagtcatat gtctaatac 439

<210> 11747
 <211> 388
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-029-Q1-E1-G1
 <400> 11747

ggTccgaaat atccgggtcg acctgagttt tggactttta atggcccatg cctttcatgg 60
 tccaatacct gcccggtttc tctttcggcc tgctaaaggc ccacaacaca gttgggcat 120
 ttacaataca acctgacttt cggcctotta gcggcccatg ctcttcatgg tccaatacaa 180

gtccgctgtc tctttcggcc tgctaaaagc cgacaatatg gttggggccat atgtacaccg 240
aacttattaa cggcctgtta atggcccgtg aaatcaaagt ggcccacatg ttgcccgtt 300
tgatgtcagc ctgttaacga ccccggtatg aagacggccg atcattaaat ttcggcctgg 360
tttgtcccaa agaaaaatgg cctggtaa 388

<210> 11748
<211> 436
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-029-Q1-E1-G3
<400> 11748

cgggtcgacc accccctcca ctacagagga caccgccacc gccctctgct gggacggaaa 60
accatctctg tcgctgcagt ggggactgtc tgacaagctg caacgttgcc tgggaagagc 120
ggatggcctg gaacaatatt tgaagaagac cccgtgcagc gttgacgcct gcgattacct 180
gcagactctc aagatgcgcc tccacggtat gattcacaac ttctgcatca aggcgctcaa 240
gctgctgccc acaccatcgg gctcgttat gtgtggcttc ctcatggccg gccactgcta 300
cggtccatg gaccctgtct ctaacatcat cgtcaactcc atttggtaca acttccttgg 360
cggctctctc ccagcgtctg aaggcagcaa gattgagcaa tacaatgaca tacttgacct 420
cctatctctg ctccgc 436

<210> 11749
<211> 433
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-029-Q1-E1-G4
<400> 11749

gggtcgacac taaggcaaaa gatggagatg atgcagaagc taccaaaggt ggggaagatt 60
cagatgattc ggatggtatg gacgacgatg ctatgtttcg tattgatcct tatattgcga 120
ggattttcaa ggagcgcaac aaccttctg gtagtgaaac tcagcaatct caacttatgc 180
gatttaagct tcgctgtctt actttactgg agatatatct tcagaggaat ccaggaaaaa 240
aactggtgct ggaggtgtat gctttcttaa tgcaagcttt tgtgaaatca catagtgccg 300

atggcaatga gcagttcagg caacgtattg gtggtatatt gcagaaaagg atattcaaag 360
 caaaagaatg tccaaaaggg tttgatgtcg aacttagtaa acttgaaagt ttgctgcana 420
 aggctctgca tct 433

<210> 11750
 <211> 468
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-029-Q1-E1-G7
 <400> 11750

taccggacca gaattcccgg gtcgacgacc tcaacgggac caacaccact gctaactcaa 60
 tgatggatat acattcactt atcatgtccc tcaatttcac ccaaategag ataaaaactg 120
 ccaactttgc caactcatgg ggagatgggg tgctagtgat ggtctctggg cttgtacaga 180
 ccaaagagta cagcaaccaa aggaaattta tccagatgtt tttccttgcg cctcagggga 240
 aagggttactt tgtgctcaat gattatttcc actttgttga ccaagaacaa gtgcaacctg 300
 cacaggtgag agctcaggaa gcctttgaga ccaacatggc atccaacaca gtccaaacaa 360
 gtgcagagta cattcatgaa gaaagtcaaa caatgcaagc tgttccagta acatctgaag 420
 aaaatgatgc tgttgactgt tacacttact ctgaggcacc acagcaag 468

<210> 11751
 <211> 370
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-029-Q1-E1-H5
 <400> 11751

gtgggtcgac gtcacaccct atagtgagtc gtaatacatt cccttcttga aggacattta 60
 aggacgcgtt acgtctcttc ttgcagcgag cggcaaacga cgaacctcgg tctcgaatca 120
 tgtcatgggtt tgtattctcg gaattaaatc gcactgtcaa gaaaagagtg acgcagctca 180
 tgtagatgag cattaagagt tttttttttc ctttgtcggt taagagaatg aatgaaacca 240
 gacattttct tgagcagttt gttgaactga gaatatgttt gttgcatccc gtccggttga 300

ttaataaaga gatcatatat atctgttgta aaaaaaaaaa aaaaaaaaaa aaaaaaaaaag 360
cggccgctct 370

<210> 11752
<211> 421
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-H7

<400> 11752

attcgcgggt cgactggggt tatctgcggg attgggccgg ggatttttct catggagaag 60
gtaataaact taattagcaa aatattcact catctcttat cgcagtccgt ccgtcgctgt 120
taatcaaccg gcggaaatcg tcgtggaatc atttttgttc tagctgattc gtgggtgttc 180
attcatgtgt gcatagtgcg agcacaaatc cggcaactgt ggtcgtggcc agtcggaaac 240
gaagttctat ctaacaaatc cggatgactt caggagcgc tcggtatgtt caatctcaac 300
gtaccacggg cggcatggcc taaatttggt gacatatacc gtctgttgct acattatcta 360
tatatttgca tcaaattctt gttacgttat atattttcaa gtctatattt ttgtactttt 420
c 421

<210> 11753
<211> 418
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-029-Q1-E1-H8

<400> 11753

tcgcgggtcg acagatctga cgaggcagtg gcgagcgtcg agaaccctgg ctggtgcatt 60
gccaaagccg tggggtacct gattctcggt gctaccattt gtgccgcatt tgcagaccg 120
ctcgttgatg ctgtccacaa cttctctaac gccacacaca tcccgtcctt ctttgtctcg 180
ttcatcggcc tcccgtggc aaccaattcc agcagggtg tctcggccat catcttcgcc 240
agcaggaaga agcagaggac ttgctccctt actttctcgg aggtgtacgg cgggtgtgacc 300
atgaacaaca cactgtgcct gggcgtgttc ttagcgtca tctacttcag ggagctgacg 360
tgggacttct cctcggaggt gctcgtcatc ctgctcgtct gtgtcatcat gggcctct 418

<210> 11754
 <211> 454
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-032-Q1-E1-A5

 <400> 11754

 attccccgggt cgacaagact atggacgaaa ttaatgaaca gacagaaaac atgaaacaaa 60
 tacaagatgc tctgtcagct cctcttggag cttctgctga ttttgacgag gatgaactgg 120
 aagcggagct ggaagagttg gagggagcag agttggaatc ccaactactg gagcctgttg 180
 taactattcc tattcatacg acgcccgtcc caggcaaggc gcaaccaact cgccctgctc 240
 cacagaaagc atcggctgag gaggatgagc ttgctgcact gcaagctgaa atggcattgt 300
 gatcaggccc ccagtgaatg aagaggtgaa atgtacaaat gattggctgg acggtacgct 360
 gtcgcaggcg agtcctggct acacatatat ttgcccggtg gtataatctt tgggtgggaga 420
 catttggcga acagaggcaa gaaaggctgc tcca 454

<210> 11755
 <211> 452
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-032-Q1-E1-A7

 <400> 11755

 attcgcgggt cgacatgttt acagagagag gtgtcgatat aaacaaatca cgtcaatagt 60
 agcatcatga tcattttatt ataatatcag tatctcatca tacaacttct catgagcaag 120
 taacaattca tcacaacggc aaagtatatg gcataaactt tcttggtagc taataaacta 180
 tgttgttagt caacagtgcg attgcagctc atcgtgtttt taggcagggt cgcattgttag 240
 agcttttggt caacagggtcc acatactcga ctatcgttta gtcttctatg attgctaaca 300
 ctcacatata caaatatagc tagcgtgtca gccagacaca tagaaagata ggggcttatg 360
 atttcacctc acgattcatt tacctcaagg gtaatgtcaa cagtaataac tcattatcac 420
 tcagactcaa ctggatacat gtgtcgacat ct 452

<210> 11756

<211> 453
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B5

<400> 11756

attcgcgggt cgaccttgaa cacttctggt catgctcatt gaaacaatgt acaatttttc 60
atgaagattc tcaaaaaagt aattatcccc ttgtacaaat ccattgtatt ataaaactaa 120
tgtcccaaga tttgccttta ggatgattag attgcttggt ggtatgtgag gtgcaggaac 180
ataaactttg gctgtagtgc acgatttaca ttttttactg gaaagtcaaa agcttctgaa 240
acttttcgca caatattggt ataaaaattg tttattttgt cctaattttc agaatttttg 300
gagtaccgga agcatggtag atgttcagat tactacagac tgtcatgttt aagacatatt 360
ctgcttttga tgcattgttt tgcttggttt gatgaaacta tcgattctat aggtggtata 420
agccatggaa aagttataat acagtagcta caa 453

<210> 11757
<211> 446
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B7

<400> 11757

gtaccagtcc agaattcccg ggtcgacaga agacgacaga aggggtgtca agaaaggtgt 60
gtggtggcag gcttggcttc cggcctcggc atcttccgtt ggccccggtg ccgtgtggct 120
gaggcgatgt tgtttggcat tagctacaaa atagccatga tgttctcttt taagccctgg 180
atgggaaatc tgttgcaagt gctcaagggg tgttaagagc atatgcttcc caaggccaac 240
attgtgatgc atgtgttggt agtttagaag tgttttggtg tagcaacacg agctgacatg 300
tagtttggtc tgtagttcat tgtacatgca agttgaattg tcctgaccat tttatgaaac 360
ttaatttagc tttttattgg attgcagggg ggtatgaata tgtcgtatga tgaataattt 420
tgaattatgg ttggtataaa tccaaa 446

<210> 11758
<211> 465
<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-B8

<400> 11758

```

gtaccgatcc agaattcgcg ggtcgactgg aaggtgatct attctaagga tgcctcggg   60
caggggtactt agatcaggtc tgtgacccta ccctaggtac atgactccat cagtgagaag  120
ctctggtttg tgagaagcat ataccctaac ctaccccaaa tgggacaaaa aatttaccac  180
agcatgttga tgccgctcaa tgatagcatg caaagtttca tgaattttag acgagttttg  240
gatttactag aatttaaaaa ccaggcatct caatgttttg ccgacattca acggtgcctt  300
ggtgtttgaa attcattccc atttctttca tgggacctaa gcatgcaccc aaggacaaag  360
atgttgatttt tcaaccaact tctatgcact ggagcatgtg catgtagtgc aaacttgaat  420
tacgcacata aatgcatcga aatctcactt aatgcataaa aatgt                               465

```

<210> 11759

<211> 466

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-C7

<400> 11759

```

gtaccgatcc agaattcccg ggtcgacaac gaggatgaag atggccagag gaggtacaag   60
aggcaaatcc taaggagact ttatgcggga atgaataata ggcgtattag gaccaggaac  120
tggggctatc catgcccatt ttgcaaccaa aagcttcac acacgtataa aagtgttctg  180
gcacatgcaa gaggacgagc cgttggctcc ttcaagcaga tgtattctcc cagggtgga  240
cacatcgctg aactgagta cctagagaag cttcaggatc atgccgacaa atgagatgag  300
atgtgggatc gaactatgta tggctatgta gtgtcttaat tataaatgcg cctgagtatg  360
cttaatgacg gttgaactat atacttatgg ttacctatg cttgtgtacg cttattacct  420
atgtctgagt atgtttaatc tatgtttact tgtgtctaaa tgtggg                               466

```

<210> 11760

<211> 454

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-D5

<400> 11760

ttcgcgggtc gacttccact gaagcgaagt ccatcatcac atcgaaagac gggacacctt 60
tgcttctatc aagtggatc agttttcagg ttgctcgggtg agattttaca gtttttcaca 120
gttttagatcg catctgtcat tcatacctac agtccatgaa aaagccacaa aaaaagttag 180
atctgttcat catttatcca agccagtccg agcctttgca attttctatt cattgcttgc 240
atagttgaat tatcgggtgc atcgtcgtgt cagttgctgg tcttagtgtc tagttccttt 300
agagttttga gttctgttca cattagtcac gccgccgtg tatcattatg ctttcgctg 360
tccaccatcc catccattaa cttccaccac gtgctacgca ctgttcattg tcataatcat 420
agttgaggtc attcacatct tcgcctgac caat 454

<210> 11761

<211> 443

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-032-Q1-E1-D6

<400> 11761

taccgatcca gaattcgcgg gtcgacagcg gctactaagt ggggtggtggg ttttcttcgt 60
cgcccgcatc ccattctagc cggacatagt tcagctaagg ttctcctgac aaggagagag 120
accttaatga atttagcacg tccccgaagg gtgagtgtg aaagatgtcc ggggaggtga 180
actccatgat cggcgcccag tcggactcga cgagcacgga tatgagcggc tcggagtccg 240
tggctgtaga tgaatacagt ggtttggcga tacgactctc gtaaggggta aagtcagcat 300
cgggtcccat cgccactgag agtacggcct ccatgacggg gtccatccct tcgctctcgg 360
atggcgcgac ttgctccgga tcgatggacg gagtatcttc ggatgcgac tcncgaatac 420
tgtccgacag cagagtggcg tca 443

<210> 11762

<211> 448

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-032-Q1-E1-E2

<400> 11762

gtccgaaatt accgggtcga ctttgggatg aaagtgccaa cgggaaatgc tgctcgcacg 60
tgtgatctgg ttttctgcaa aatgctagtt acagttgctt ggacccttgt ttcttgctat 120
cgggttttaa atccaagctt atctgtttgg ccacccctac ccgtgggttg ccagctaag 180
ccgtttgaac tatttatgta tctatattgt catgccttgg tacctcccta cctgttgtac 240
ttgattcatc atgtttgctc cgatgtggta ttacttaggc tgctcaggta atgagcatat 300
tagttgttgc tactaaactt tctcactccg ctgtaatgtt atatattgtc tctggaagtt 360
taagcttatt ggtaatgttg ctgctacatt gttatgtagc atcctccaaa anaaaaaata 420
aaaaaaaaa aaaaaaagcg gccgctct 448

<210> 11763

<211> 469

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-E5

<400> 11763

gtaccgatcc agaattcgcg ggtcgacggg cggccgtgta caaaaaccag caccacagag 60
tagatcagcc cctctgcaaa tcaggaagct ctccccgtct cactggtcaa gaggcagctt 120
cagcgagcat gggcggcggc ctcgccattg atttgatata aactagcgtt agaccaactg 180
ttagcttcgg ttttttagac ttgatgaggc agaggctagg gggaatgcca ttcgctgatt 240
cgcccccgct cgattcttgc ctctggctcag tgtacagttt tccgacagag tcgcagccag 300
tgactctctc tctctggtag tctgatgatg tttgtaatct gccttgagct gcgctgcttc 360
tctataacga tagggcgata ggccggctgc gtgactggca ggtgccgtct aatttttggg 420
aatcgtagta agtttgtcat gtgtcaggat tgtgtgatct tggtagggg 469

<210> 11764

<211> 457

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-E8

<400> 11764

actcgcgggt cgacgtact cccatatagt gagtcgtagt aggtcctagt ggtgcaagag 60

aagtatcgcg gctgggcggt ggatgggtgtc tggaaactcc ccacgggggt cattcaggag 120

tcagaagaaa tatacacggg agccatcaga gaggtgcacg aagaaacagg ggttgacact 180

gaattcgtgg atgtgggttgc cttcaggcac gcgcacaacg tggcgtttca gaagtcggac 240

ctgtttcttca tctgcatgct gaggcctctg tcgagcgcga tcaagatcga cgaaacagag 300

attcaggcag caaagtggat gccgctggag gagttcgtga agcagccggt catccaggag 360

gaccacatgt tccagaagat catggacatc tgcattccagc ggctgaggaa gtgctactgc 420

ggcctcacgg cgacacaacgt cgtctccaag ttcgacg 457

<210> 11765

<211> 451

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-F2

<400> 11765

gggtcgacag cctagttgct tggttggcct cgagtcgaa aacaaacctt tctcttccgg 60

cgccacaaaa gccaaagctta aacgaattcg gaggaccatc ttcttttgcc tctcaagggt 120

agaagctctt cgtctcagca aaaacaaaga aaagaactcc accacatatg agttaatttg 180

catgccaaac aagctcaaag caagaaacta caagcaatgt ctagtaggcc gagactaagc 240

taaaaaagtg taatgtatgt gtcccatagc atgcacacaa cataacaaat agctctcaat 300

cagttatcta atccccctcc tagtttgctg tgtttcaaca acaaaaccca tcaaaaggat 360

cgtgatagtc acaatcaact cgatccgttc aaactgcaga gttttcttgg taaattacca 420

agagtagata agagttcttt gcgtaatcgt t 451

<210> 11766

<211> 468

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-032-Q1-E1-F7

<400> 11766

gtaccgatcc agaattcccg ggtcgacggt gacgaccggt cttgtatctc acaagtacgg 60
agagaaagct gctgcggcca ccaacgaagg gctcgacgct gcaggccacg ccatcggaac 120
ggcgtggggc gtgttcaagc tccggcagggc attgaacccg aagagcgctc tgaaacccac 180
gtcgctcgcc aagtccagca tcaaggccgg ggccgcggaa cttagggtcga agagcagcaa 240
gagcgagtag ggtctgaagc agtcttcgcc gcagccggtc gtatcggggc tgatgagatc 300
agaaacttgc atatgtgtag cttgtagata tgtgtgctgg aaacagagag caacctgcct 360
gtcatgtctt tccctctgct gatgtgcttc ctagttagt atctgttgct tggttttgtt 420
ctgtgctctg taagtcgatg aaatggagtt aggtaatcgc tgaatttt 468

<210> 11767
<211> 469
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-032-Q1-E1-F8
<400> 11767

gtaccagtcc agaattcccg ggtcgacatc gagccagatg cgcattgtcaa gcaggcgatg 60
aatgagatca atgcagctgc aacgatgagg gtggctgcaa acgagaaggc ggacgctgag 120
aagattgtcc acatcaagcg tgccgacggt gaagcatagg ccaagtacct gtctggcctc 180
ggtatcgccc gccagcgcca ggccattgtg gatggcctga gggacagcgt cctgagcttc 240
tcagtcaatg tgctgngac cactgcaaac gatgtgatgg acatgggtgct gatcaccacg 300
tacttcgata ctatgagaac atattggcgc gtcctccaac tcctcggcgg tgttcatcac 360
ccatggccct gctgcggtgc gcgacatcgc cacgcagatc cgtgacggtc ttcttcaacg 420
ccagtctgcc gctgacaact agcagtttgc ttcaccggca tgaactttg 469

<210> 11768
<211> 463
<212> DNA
<213> Triticum aestivum
<223> unsure at all n locations
<223> Clone ID: LIB31-032-Q1-E1-G5
<400> 11768

taccggtcca gaattccccg gtcgaccccc ccctctcttg acattctccg cacgctttag 60
 ccgtccgcta tgcaactggag cttctggagg cctgcgctga atatgcccc accatttttaa 120
 acgatgttgg acaagcttct cctcaattgg tgctaccctg actctatctc gtatatctca 180
 aacgatgttg gacaaccatc tcaactgttt gcttctagtc atggaaacta aataaatttt 240
 atggttctca tttttcttag tagagggtct gtcctttccc acataatgac atacctcaat 300
 agattttttg aatgctctgg cagctggaaa gtgatgttac attcaggcct ctaacatggg 360
 cactccattg agttgtgata aatttatttc accaagttgt cgttccaatc ttcagtttgt 420
 gacattgggt gtctgatatt tgtganaatt agaacttatg aac 463

<210> 11769
 <211> 465
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-032-Q1-E1-H1
 <400> 11769

taccggtcca aaattccccg gtcgacccaa gtgagctttg gacgtgccaa caccgtcttc 60
 taccatctt cggtcttcac aaacttgagg gaaccctctg gcatccttcc cttcccctgg 120
 aaaatactta agaaaccaag tcagactact cattgttatc aacataaaca taaattgcac 180
 aataattttt gttattgtac taaactttta ctagtgatat agcaataagt aacagtaata 240
 gtagcagtca ctagtcagtt cgtcaatgct agaagcaaaa ccttccgcaa cgatacccca 300
 atgatggatc gcgtgacagt cactagtcag ttcacatcat ccagaagcaa aaccttccgc 360
 aacgatacca caatgacaga ttacggaatg cacgcttata taaacataga caatcgggca 420
 tgtaaaggag aagtacacgc cgtgtgtgtg tgggttgtgc gcgtc 465

<210> 11770
 <211> 455
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-032-Q1-E1-H3
 <400> 11770

gggtcgacat gcaactgggg accctcgaca tatagtacga aacaaaaagt acattttaat 60

agacgaagaa tagaaaaacag caagaaaaaa tgacaaatgg gaataaaaga taaaatgaga 120
atgggaagca cgagtaaaaa tgaacttgcc aaaatttaga acaacaacaa aatccaatat 180
tttcaatgaa aacagaaaaa aaaaatctag aaccactact cctccccttg taatgcaatt 240
ggaggagata aagaaaatcg atggaaccgc tactttcatt cacgctctct tcaattctag 300
aatggatcta gctgtcatcc tctttgtggg tctaaaatat gaataatgat aagcataaaa 360
aagaaaacac aagatgagag agaaaaaacc aagaacacaa catacaagta gaaaaattta 420
tcttctagta catttcagaa attaacccaa tctca 455

<210> 11771
<211> 454
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-032-Q1-E1-H6
<400> 11771

attccccgggt cgacatatgt tataatatta tgcgtccgtt catatacata gccaccgata 60
gcatttctcat acgagcatgc tttctcgagc catgttggta catgaacatg gacatacaca 120
tattcttagg aacaaataag aaagataaat ggagaaggaa aacccaaagc aatgtcagag 180
ttgacaaaac tgcaatggca ctttatatat ggctgtcgt gagtgagctg tttaggcctt 240
gccggactcc tcgcagcccg gtggcttgaa ggcgatgaag ctgacgcaact gcacctggcg 300
catgttgtcg aatccgatga tgcggacata cgcgtcaggg tactccttct tgacctctct 360
cacctcgttg atcacttggt tggcgctcgt gcacccgaac ataggcagct ttcaacattg 420
ttcagtagcg ccatcatagt acccaaagga tgcg 454

<210> 11772
<211> 440
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-032-Q1-E1-H7
<400> 11772

attcgcgggt cgacaagggt tgtatgatag tcacgaagca gctggcagtc cctgatggga 60
ccctgtcac agcggagtcg aaattttctg aacttgggtc tgactcactg gatacggttg 120

agattgtgat gggcctcgag gaagagttca acatcacctg cgatgaaaca agcgcgcagg 180
acattgcaac cgtgcaggat gcaacggacc ttatcgagaa gcttgtgaca gataagacag 240
cgtgagcacc tcggttcatt ggacagcttt agaatgcaaa ggtgtcatct ggaaccgtgg 300
acttctgatt ttctggtcgc atttggggcg agagaaaata atttatggac agctttgcat 360
tcagtctatg ttgtgtgttc attaccattt gttatttctt catcctctcg agattttgtg 420
tcgttgctta ggggttaataa 440

<210> 11773
<211> 399
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-032-Q1-E1-H8

<400> 11773
gtccgaaatt cacgggtcca cgtcctcacc aaagccataa tgtcccactg cgtggatgct 60
ctcaagaaac gttgagtgtc atcgggtgtcc tggacgttgt ggcaagatca attcaagcac 120
tccacttggc ctattcgggt ggggtcaatt gtgtaattcg cccagtgcag ttaccgcatg 180
cagatcctga ggatggcacg aagggtgtcac atgccattaa tgggacaatg tctcctggag 240
cacagcatga cactgatgag cgtgagctgt ctgactgca agctgtgatg aagtgcctct 300
aggaccacag actggaggag gactatccgg tggaccacc tcagacgagg gtgattcaac 360
tggagaacgc caatgcatac aaaacgaagg ctgtcgaat 399

<210> 11774
<211> 456
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-043-Q1-E1-A1

<400> 11774
cgctgccccg taccggtcct agattccccg gtcgacggtc cgggtggcatg tatgggggtca 60
ttcagtctgt gccctagatg atccgacaat ttctctcagg ctctatggct acaaataatta 120
gogcctgacg gtccggccaa gggcctgtga tgcgtctagg gttgctctgg ccaggcaggg 180
gatattccat ttgtcctttt ccttgctcog agtccgtgtc ttggctatct atccttgctt 240

gttcatgttc cttgccttca accctaagca tacacaacgt tcatgtgtta ggcagcccac 300
cattaccctt aggcataatca agtgggtagt cattgaggaa aagattcacc tcatgttgta 360
ttgccttggc tcacgccttc gtcattgcat tgtccaatth ggcctttcta acttggcgta 420
gtgatgttca tgggtgcctag tttatcatac catcat 456

<210> 11775
<211> 239
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-043-Q1-E1-A5
<400> 11775

gggaagaggg attggaagag gagcacgagg aggatatgga agcgtcggag gaggaagggg 60
aggatgtggt ggtggggcag atgccaacgt tcatggtccc aaagcacatc aataagcgcg 120
ccctgaagaa caaggccctc tccgtctccc tcgacaagaa agccctcaag gatttcgtga 180
ctgggtttca caagagaaag aagaagagga gaaaggaggc gcagaagatt acgcaggag 239

<210> 11776
<211> 405
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-043-Q1-E1-A6
<400> 11776

tacaggtcca gaattcccgg gtcgactcat tgccttcaac tgtactcagc accatctttg 60
ttactttctt cccacaaccc ccaggggtgt tgaaaaaagt gagtggggaa atcgtcaggg 120
cccggagatt tgatggggaa catcttgaat agagcgtcct tcaacttctg ttgcgtataa 180
ggcgcgttga gctgagcatt catatcgctt gtcactttat gtggaactat ctcaataact 240
ctatccacat cttgcattcc ctctgaagta tatatggttt tatagaaaga gtttaccatg 300
ttttccatct catcattatc ctccgagaga ctgccatctc tgcgcatcaa agctttaage 360
ttagtcttcc ttgggtcagg aataggcgct cgctaaccgc gcctg 405

<210> 11777
<211> 382
<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-043-Q1-E1-A7

<400> 11777

```
attccccgggt cgacacacgg cccgcggagg tgttcttctt gcggtttgac catatctttg   60
agatgtttctt gacaaagcgg ctcgatttta caatcgtcca cttttttaca ctacatatga  120
gcttcgtcat  gaagagagaa gaagtctcgc aaatctgtgt ggcggatccg tactacatgc  180
acgagtccttt cttgagtctc ggtgactttg agcgtgaaac tgctagggac tacctccaaa  240
acttcatggt  acagaataag gaccaggaat ttggcctcct gccttatcat ccaaagtaag  300
tcaattccgg  acaacccttt cgtacatttc aatcattcct tctcgctcat atggagaata  360
atttgaagtg  tcgtttcccc gc                                     382
```

<210> 11778

<211> 429

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-043-Q1-E1-B7

<400> 11778

```
tccagaattc  ccgggtcgac aatgctggac gcaccacggg aacggggggt aggcaaggag   60
aacgttattc  catcttcaga gagecgtcgt tgtctcgtct ttctgagcag gacacaaacc  120
ttaacagatt  tcgaagacac atctaaaaac ggagccctca caccggcaag ggtcgggata  180
cactgtgttc  tcatgaccgt aaggccaccg gagacgaggc ggaaccctaa ttagggagga  240
ggcggcaggt  tataattcat acgaactgat ttgtagttgg acggctagga tgacagttgt  300
atccccagcc  aaccaaggat gaagtcctag attattgatg agtggatttt atacatactt  360
ttagagtata  ttatagtgcc aaaatccctc acatcatatc catctagcac ttagtcatgt  420
ctctaattgt                                     429
```

<210> 11779

<211> 459

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-043-Q1-E1-C1

<400> 11779

tagccgccc aaattctcgg gtcgactatg gaataaggag tggcaagagc ctaagattgg 60

ggatgcccac agcaccacca gatattcaag gataacacaa acctaagctt ggggattccc 120

cggaaggcat cccctctttc gtcttcgtct atcggtaact ttacttggag ctatattttt 180

attcgccaca tgatatgtgt tttgcttggg gcgtcttgta tgatattggg ctttgatttt 240

tagtttacca caatcatcct tgatgtacac accttttttg agaaaccac atgattggaa 300

tttattagaa tactctatgt gcttcactta tatcttttga gctagatagt cttggctcta 360

gtgcttcact tatacttttt agagcacggc ggtggcttga tttttagaa attgttgatc 420

tctcatgctt cacttatata attttgggag tcccttaaa 459

<210> 11780

<211> 362

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-043-Q1-E1-C3

<400> 11780

gtcctaaatt cacgggtcga ccccttctac atgcatgcc aagatcctggg cggcgctagg 60

gaccggcaag tcgcgagttc ttacctcgaa ggcgtcattc tggcaaacca agataaggat 120

aacttctctg tgccttactt tcccgagtaa gtctctctct caaccggccc gtaacatatg 180

aattctctaca ttctgatcgt ttttctttta acattccgtg ttttcagcag tgacacacgt 240

tgcacgctca tctctcttag ccccaaatat tccatggcca cgtatttcga cctgaacat 300

cagtogaacg tagactacag aaatgtcaag aagggttctg atgaggttct ccccggttac 360

gc 362

<210> 11781

<211> 462

<212> DNA

<213> *Triticum aestivum*

<223> Clone ID: LIB31-043-Q1-E1-C5

<400> 11781

gcctgcaggt ataggtccta aattcccggg tcgacacaag aaaaaaatg aaagcaataa 60

gaggcaatgg atatcgtttc atccccaaaa gaggaacggt cccaaccgaa aaccatcttg 120
 cttcttgtga gaagctccgg tttgtgagaa gcatataccc aaacctgccc caaatgggac 180
 aaaatttga ccacagcatg ttgatgccgc tccataatag catgccaaagt ttcatgaatt 240
 tcagacgagt tttggattta ctagaactta aaaaccaggc atctcaatgt tttgcccgca 300
 atcaacggtg ccgtgggtgt tgaaattcat tcccatttct tgcattgggac ctaagcatgc 360
 acccaaagac acagatttga ttctcaacc aatttatatg cactggagca tgtgcatgta 420
 gttcaaattt taattatgca cataaatgca tttaaaactc ag 462

<210> 11782
 <211> 447
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-043-Q1-E1-C6
 <400> 11782

tccagaattc ccgggtcgac tttgacgac cgactacgaa cgtgcgagga cgtcgcgctt 60
 tagcaatcgc taaaccaact ccgagagggt attgaccacg ccggagcacg atcaacctga 120
 ccacgagggt ctgtttctcg cgagcaaacg aagaacaagc aagaaactaa gattgcaatc 180
 tggatattgt gaatataaga tgaaagcttt attgatcaag gtagggttct gtgacgcctt 240
 tgtctgggtc ttgaacacaa acgaagtacg caaacttgca gctatggtga acttttaatc 300
 taaacaaaac ccaaagtcta aacggtgccc taagggtctg atatatggag gaagagaggg 360
 ggaatttcgt ggcccttggg ggaggggtcc gaaatcaacc ctatctctcg tttccccaca 420
 catacggact ctaaaaatag cctatac 447

<210> 11783
 <211> 459
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-043-Q1-E1-C7
 <400> 11783

gtacagggtc agaattcccg ggtcgactcc cacaaaaaac gatagctatc tcatcgaaac 60
 atcaggacac cttcggctct atcagactct tatggcaaaa actgggttca agagtttttg 120

aatgcacaac tagtatctct acgcggtaca aattttgtct agccagtact tcgggatgcc 180
gctaattgcaa cactaaaatc atagaccctt ccacgaatct gtatgcatg cattagtcac 240
aaacggtgat gtaataaaac cgctaaaaaa gatgcaaaac gtttgcatg gtggatccat 300
caaacatggt tcaaatttta acaatagaaa cgggcagcca gatgaagggtg tgtgcatat 360
gcggcatact attcactcgg attaactggt tgtgattagg caacacaaca gaaatggtca 420
gccagatcaa ggtgtctgcc attgaaggca tacaattca 459

<210> 11784
<211> 468
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-D1

<400> 11784
cgctgccgg tagcgggtccg agattcacgg gtcgacagga gcaggttggc gacgccttcg 60
gagctgaggt caatgctatg gcacagggcg tcgcttagc tcgggagttg ggattgctga 120
gagtgaactt cgaaacagat tcccagctcc tggctgatac catggacctg cataaggccg 180
actcctctgc atactctcca gtcattgagg acaccaagtt acagctcaag ttgtggttct 240
cgcgtcatgt aatcgtgtct tgtaggcgtg aggcgaactc tgttgcccat gaattagcta 300
gtttgggtcg cttgtgtgaa ataaaccact cgatgcagtg ggacgatgat gtaccagccg 360
ctgttcgacg ttgtgtccag gctgatttgc cgggacaccg ttaagttaa gctactcttt 420
tcctcaaaaa gtggacacac aaattttgcc gaaaaaagaa ggagcaaa 468

<210> 11785
<211> 416
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-D5

<400> 11785
cctgcagtac aggtcctgaa ttcccgggtc gacttcacc aaagcgaaat ccaccatctc 60
atcgaaagac gggacacctt tgctctatc aagtggatc agatttcag gttgctcgg 120
gagattttac agtttttcgt agtttagatc gagtctgttc ttcataccta cagtccacga 180

aaaagccaca aaaaaaatta gggtagttc atcatatccg aaccaatctg agcctttgca 240
 taatcttttt agggttttgc tttgttgaat ttgcggttgc atcgtcgttt ctagttgctg 300
 gtcttagagt ctagtcgttt agagtttcga gttctgggtca taagttgtca cgccgccgcc 360
 gcaccatcat catcagccct gccatctagc aacaccgctt atccgccacc gcttcg 416

<210> 11786
 <211> 404
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-043-Q1-E1-D6
 <400> 11786

gcctgcaggt ataggtccta gaattccggg tcgaccatgt attcaaatat tgttaatctt 60
 gtattttcaa aacgttatca agcatttgaa aaaatgtcaa atgtgtatag aaaaaacgct 120
 aatcaaacat ttgaaaagat gctaaatgtg tatataaaaa aattaatcat gtattaaaaa 180
 aaattaattt gctcttgaaa aagtgttgat caagaattta aaatatatta aatgtgcgga 240
 gtaaaaatgt tgaccatgta ttcattaaat gttaatcatg tttttaaaaa aatgtttaa 300
 ctgtattata aaaatgtatt agatatatac caaaaatgtg tatagaaaac agtgaaaacc 360
 cgagaaaaaa cgaaataaga ctgatgaagg acaagaaaag aaac 404

<210> 11787
 <211> 463
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-043-Q1-E1-D7
 <400> 11787

cctgcagtac aggtcctaca ttcccgggtc gacactaatt actgagacat accaaataat 60
 caatgtcctc cgaagatgga ctatcattgc caatgttcaa gttggaaaca tgggtgtcga 120
 aaatgagatt ggagtcggca tacaagtcaa gctccccag cgcggaagc tcagtgaaga 180
 gttttgactg tgctataaat tctggccatg agcaagttct caaaaataaa acatgccatt 240
 tcagctacag tacacctggt gcttgccagg atcttgaaag gaccccgtc cccctgatg 300
 gcattttatg tgtactgggt gagacaaggg ggtggcattt tatgtgtaca gtttgtttga 360

attccgggga gattttggca gaaaactgcc accgtcagat ctagatctga tggctctggg 420
 ggtgttcgcc aggattgac tgacggctct ggggggtgtt gcc 463

<210> 11788
 <211> 432
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-043-Q1-E1-D8
 <400> 11788

ttcccggttc caccggttgt actgaatctt cacttggtcg cttggagagg gctcggtcgc 60
 ttgggttttt gaagttggag agaattgac tgtcttttgg gtggtgagtg ggagaggaag 120
 agaggcacc ctttatagg cctgtgggtg ggagaggaag agagaaggga tgagaatggt 180
 gcgtgtgtaa atccggacgt gtgtgtgtat ccgttaagtt ttggaccctt aaatttttgc 240
 acggaaacga tgcattgggc gcgtgcgtgc atttgaatca ctgcatatgg aagctctttg 300
 actgggcgcg tgcattgac tcgtgcgtg gatcagaacg actaccgtaa tctgaaacaa 360
 tggcctaact ctgaatcaat acgtgcaggg ccacctagct cgccgaactc gcgtcgctcg 420
 catgcatgca cg 432

<210> 11789
 <211> 338
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-043-Q1-E1-E3
 <400> 11789

gtccactgag ctgctgcaac ttatcacatt gaacctgcag cttggctgag gctttgaatt 60
 tgagcttggt ttatgtgtgg tttgctgccg agttgccgtt ggtcttctcc cagttgtgtg 120
 cacatatggt acatgtcttt tacatcaagc tggaaaaccg tagatttgaa ctgcagttcc 180
 tagttctagt ccagcaataa cattgtaatt ggtgggttaac agcttgagca accatttggt 240
 ttccggtggct gttgcccttt agtatgtttt ttctgatgtg ttgaagaaga tggactaaaa 300
 cggaataaaa gaggggccgg cctagatgat ccaagctt 338

<210> 11790

<211> 473
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-043-Q1-E1-E4

 <400> 11790

```

acgcctgcgg tagcgggtccg aaattcacgg gtcgacgtcg cttacgtcgc tctccagtcg   60
tgccatgggt tggacgtaga agtagaatat gtgaatcata gctagaaatc aactacaaac  120
tggcaaaaga agtggaatat ttagcaaaaa gcaatgctaa ttagttatct cagatgtgcg  180
attgttgctg aacattaaga caaaagaagt agaataacta accaatcatt aaagttaaag  240
tggaatattt agcaaagtag tgaacccgtt gcgccaatg acgcatagac ccgctaaatc  300
caagtccgaa ctaaaaagaa aacccatgat ttaattagtt taattatggg caagcacata  360
tagtaacaaa ctgaacactc tttagagtaa taataataaa gaacgcttgc ctgttctgta  420
caatacgatg tacacacaca tttaaatttg gcaacacaaa gtttccaatg aaa          473
  
```

<210> 11791
 <211> 374
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-043-Q1-E1-E5

 <400> 11791

```

tccccgggtcc acgcagctgc tcggaaagcg acatttcatt tgtgtactta gctatatgtg   60
tgtaccact tagatagccg ttatccgtca actgatatgt taccaccaca tgcattggttc  120
cggatgatgct caagcagtg cggagatgga gacatcaacg tctcgatata cacacaccga  180
cctactctga agggagaaac cactttgtaa tttgtaactt gctaaccgtg catgaatgga  240
aatcatcta tttccatgaa cttgagcatc tgtaccgat cggcacttct actatataag  300
aacagggact gccttgggta agaaactaaa gcggccgctc taaaggatcc aagcctacct  360
acgcgttcaa gccca                                     374
  
```

<210> 11792
 <211> 452
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-E8

<400> 11792

gtaccggtcc agaattcccg ggtcgacgcg tatcggaac aggttgctcc tcgtcggcct 60
gccagcgca gcagcgcggt tagctcctcc cccatcccc aacagatcca aggttcctcg 120
gagagagaga gagagagaga gagagagaga gagagtatgt acatgcggaa cttcacagt 180
gaggatcgcg gggcgccgag gctcacgctc ttcacgccc tccgggcagt ccgttcgtcg 240
ccgccgtgcg gttggggatt tcgagggcg atgtcctctt tttgctgct ccgccgcgga 300
cggggctaatacggacttca gagcccatat cttttttttt ttgagaaatt tcagagccca 360
tatctaattgt ggactcaatg tgcacattct tttagccaac tcattgtggg ttcatagtgg 420
gccggtcacc gtggtctagc cagccaaga aa 452

<210> 11793

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-F3

<400> 11793

gtccgaaatt cacgggtcga cgagtgcgag gccgccctca acgagcagat caatgtggag 60
tacaatgcct cgtacgcgta tcaactcctc tttgcatact tcgaccgga caacgttgct 120
ctcaagggat ttgccaagtt cttcaaggag tcaagcgatg aggagagagg acacgccgag 180
aagctcatgg agtaccagaa caaacgtgga gggaggggtga ggctccagtc aatcgtcaca 240
cccttaacag agttcgacca tcctgagaaa ggcgatgcc tgtatgcaat ggaattggct 300
ctagctcttg aaaagctggt gaatgagaaa ctgcacaacc tgcacagtgt agctacaagg 360
tgcaatgatc ctcagctgac cgactttgct gagagtgaat tccttcagga gcaggttgac 420
gccatcaaga agatctctga gtatgtgt 448

<210> 11794

<211> 437

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-F6

<400> 11794

gtcctaaagt cccgggtcga cacgaaaaat ccaacggtga aaatggttca acatttggat 60
gcatgattca agagataaaa ctttttgaat aaacaaacta caaaaaaggg aaacttctgt 120
tgcgacaagt gatgcactat gcgccaccta tcagtgcctg agaagttgaa agtgaccttc 180
gaaagggtaa tccttaatta gtgatttgtg gtaaggttct gcttgctacg ggacgcgcca 240
atgcctccct aacagcgaga cgtagggcag cctcgccctgg gctggcccaa cccgcgggag 300
gccacatgcc acaacctctt ttcctccaat ttttacttt tttcaagttt acgttgccaa 360
tgcttccaag taacaattgg aaaatattaa tagttcattt gaaaagttgg taaatccgtg 420
caggaaaaat gagtcgg 437

<210> 11795

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-F7

<400> 11795

tccgaaattc ccgggtcgac tgccaccaa gcgatatcca tcattctcatc gaaagacgag 60
acacctttgc ctctatcaag tggatatcgga tttccagggt gctcggtgag attttacagt 120
ttttttagt ttagatcgag tctgttcttc atacctacag tccacgaaaa agtcaaaaaa 180
ttagggtag ttcacatat ccgaaccaat ctgagccttt gcataatctt tttagggttt 240
tgctttgggt aatttgcggt tgcatcgctg tgtctagttg ctggtcttag cgttagtctt 300
ttagagtttc gaggttctggt cataagttgt cagcccgcca ccgcaccatc atcatcgccc 360
ctgtcaccta ccaccaccgc tcogaatccg tatccatata ccaccaccaa tccgtatcca 420
tataccacca gcgattcata tccatata 448

<210> 11796

<211> 338

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-043-Q1-E1-G7

<400> 11796

attccccgggt cgacttccac caaagagata tccatcatct catcgaaaga cgggacacct 60
 ttgcctctat caagtgggat cagatttcct ggttgctcag tgagatttta cagttttttg 120
 tagtttagat cgagtctggt cttcatacct atagtccatg aaaaagccaa aaaaattagg 180
 gttagtctgt cccatccgaa acaatctgag cctttgcaaa atcttttctg tatttgcttt 240
 gttcaatttg cgggtgcac atcgtgtcaa gttgctgggc ttagcatcta gttctttaga 300
 gtttcgagtt ctgttcaaag gttgtcatgt caaccctg 338

<210> 11797
 <211> 460
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-043-Q1-E1-H5
 <400> 11797

cctgcagtac aggtccaaaa ttcccgggtc gaccatgtaa tataaaaatg atgaaacaaa 60
 ttttctcact tacagaaaaa tggttaatcaa gcatttgaaa ttttttggtg aataagtatt 120
 tgaaaaattg taaaggtgta tagaaaaatt gttgactatg taataaaaaa atgatgattt 180
 tctttgatca tatatattga aatgtaacca agtatttaaa aaatgttaaa tatgtataga 240
 aaaatattga ccacgtaaca aaaaatgatg actttctcat ctctctctct ctctctctct 300
 ctctctctct ctgtctctgt gtgtgtgtgt gtgtgtgtgt gtttaacaaaa catatgagaa 360
 atgtgacata tgtttagaaa aatgttgacc atgtgttcaa aaatgtgaat aatgcagtta 420
 taaaaagggg atcacgcacc tgaaaaaatg ttaaaaagtg 460

<210> 11798
 <211> 429
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-043-Q1-E1-H6
 <400> 11798

ggtcctaaat tcccgggtcg acttctttcc tctttgttga ttcttatgct gctgggtgctt 60
 tgggctggta aggcccaggt gacttatcaa cgagcccgtt gccaaaggcaa agcaacatct 120
 atatacatat ttagcttatt aaataccact caaaaagtaa acttaactta ttaaatttgt 180

ctcaaaaact aaacttaact tactaaattc tgcttaaaaa cctatcttat taaattctca 240
acaggatacc aacttagctt attaaagagt tttcttaact gaacttaata aagagcgaac 300
gtaggataaaa acagatgatt ccaaaacaga gtgaatgtcg gaataaaaaa aaacgggggc 360
tctagaggat ccaggettac gtagcgttca tgggacgtca gagctcttcc agaaggtcac 420
ctaaagttc 429

<210> 11799
<211> 378
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-043-Q1-E1-H7
<400> 11799

attccccgggt cgacttccat caaagcgata ttcacatctt catcgaaaga cgggacacct 60
ttgcctctat caagtgggtat cagatttcca gggtgctcgg tgagatttta cagtttttctg 120
tagtttagat cgagtctggt cttcatacct acagtccacg aaaaagccac aaaaaaaatt 180
agggtttagtt catcatatcc gaaccaatct gagcctttgc ataacttttt tagggttttt 240
gctttgttga atttgcggtt gcacgtcgtg gtcaagttgc tgggtcttaa gtctagtcgt 300
ttagagtttc gaggctcgtt cagaagttgt cagcgcgcgc gcgcaccagc atcatcgctt 360
tgccatcgaa cagcattg 378

<210> 11800
<211> 370
<212> DNA
<213> Triticum aestivum
<223> Clone ID: LIB31-043-Q1-E1-H8
<400> 11800

gtaagggtcca gaattcccgg gtgcactccg tgggtggaacc cctccgcgag ttcgccaaag 60
acatcgtcag cctcgtcaag cgctgccact ggcccagacc caaatgagtt caccatcagt 120
ggacggcgcg cgatcgcgat agggttcgtc gtcacggggt tcgtcagcat cttcgtccag 180
ctcatcttca tctacaccag caacatcagc gtcgggtcca gcaatgttgg acgacaggat 240
taccagatgc ggggacatcg tgatcccggc aattgagccc gcggtgtgtc catgtacgcg 300

cccaaagttt gttctgaact tgttgtaga gacctgactt gtgagacatt gtcactatct 360
tcatcatcct 370

<210> 11801
<211> 332
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-A5

<400> 11801

ggtccagaat tcccgggtcg acaggatggt tacatcgccc acccatatct gcgtgtctga 60
ccctctcgac gacgaataca tgcattgacc agcagtcaat gatagacact attagaatat 120
ctttaccttt gtaacgtatg ctaattttac aagcccgatc attctgactg tgtgtcacat 180
gcctatgcat ctgaataaag gtttcttcat cgaatccata tccatcactg acatcatcac 240
ctcaatcaaa tcatgttgca acgacatctt tgttccactc ccagtcattgt cggcattatc 300
tactgtgaac gattccatcg ttgtggctac tc 332

<210> 11802
<211> 422
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-A7

<400> 11802

acgggtcctaa attcccgggt cgacgaatcc tagctcgaga aggggagagg aggcgacaga 60
aagcgaggga gagtgcgga cagagacatg aactgattga ccgcacgcga ccagcgagtg 120
gataatacag cgcgatgcgg gctgggctca ccagataaca ggtccaagag cttaacgggc 180
accacatcga gcccaggagc gaatcggctg accctaaatt ggggccagtc aaccaaacc 240
agcccaacag agccacgttc acacccatag aaaagaaaga aacacatgaa tctcaaagca 300
tgatccaacg gccaaaaagt tcgactaacc acaattctaa actcaggcga ctgtcatata 360
gctaaagtga acgtgtgtac aatgtaaaaa aatgtttgtg tgttgtaaaa aaatgtgtca 420
ta 422

<210> 11803

<211> 394
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-044-Q1-E1-B2

 <400> 11803

 attcccaggt cgaccccggt ccccgtaaga tgcattgccta attgtgccat gcggcggtgga 60
 gaagccccgg ggctttgctc gtgggtgggt ggcgcgccac tcccaggaga ggaggggggca 120
 tcagaattca gaagccgagc tttggcgaac ctggggcact gcggacgtga cgagagaata 180
 ttagcagcat cctgggtgat ggcgttttagc gtgcgtgggt cggggaagat ggagccttcc 240
 tctggctggc tggttggaat ttcctttcat ttcagttaaa ggcaaaacaa atgaatggaa 300
 tattegtatt ctgctgctcc tttgcagcta ttctccgcga atcctttctt cttctttttt 360
 tcctttttgc cgtggcagcg taagtgggac tggg 394

<210> 11804
 <211> 424
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-044-Q1-E1-B7

 <400> 11804

 ccggtccaga attcccgggt cgacatggcc attcatgtgc tgcttgactc cttcatctca 60
 acccagaaat ttggtgtcca gaaggcactt cagaagaatt tccggaaata catgacgtac 120
 aagaaggatt acaatgaact gcttctgctc cttctgcgca ccctgggtcaa ggagggcgctg 180
 cactttgaag aaatcgtgtc gggatcaacc gcacgcctga ctcatgtgga ggttaaagtg 240
 gatgacctga agaacaaggc ccaagagtgt gagatctacg acctgaggcc gttcttctcc 300
 agctcgact tcagcgacaa cagttttgtc ctggacgaag gacgtgggat catcaggcat 360
 ccagttgcag cataacaact caatcgacct cagctgantg accatgtgtg atgaacagct 420
 acct 424

<210> 11805
 <211> 414
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-C6

<400> 11805

cagggtccaga actcgcggggt cgacgaaatc cactgtcgtc acctgctgtg actgtttctc 60
tgagattcta ccggtgtggtg cgtgtgcccc ctctcggaag tcccagccgt acgacaagca 120
cagggctccg cggcctcgca agggactctt cagctgctgt ttctgcaaga tcaggccgga 180
ctgcagaacg aaagctgacg ctgtgtacag gtctgaaacc caggaggtgt tccatgggta 240
gcgagcatgt tgtagcttaa gttaggagag atgagcaccg ttgaaacaag gctgataatg 300
ttctatcatt ttggtacgga tgtgggtggc caaattccat tggaagttag atcaatttag 360
gcgagtcttt gaactgcagc ctgctcctga gttctgactc tagatgtgca tcgt 414

<210> 11806

<211> 403

<212> DNA

<213> Triticum aestivum

<223> unsure at all n locations

<223> Clone ID: LIB31-044-Q1-E1-C8

<400> 11806

ggtccagaat tcccgggtcg acgtgtggac taaaagtagt agatgcagaa aggagtcggt 60
ctacttgtca cggacaatac acatgatcat gcctagatat tctcagaatt attcactttt 120
ctatcaattg ctcgagggta atttgttcac cctccgtaat acttatgcta tcttgagaga 180
agccactagt gaaacctatg gccccgggtc cattctccat catacaagtt tccaatctat 240
tttattttgc aatttttact ttcaatttat atcataaaaa taccaaaaat acttatctta 300
ttattatcat ctctatcaga tctcactctt gcaagtggcc gtgaagggat tgacaacccc 360
tttatcgctg tggttgcgag gttcttattt gtttgtgtan ggc 403

<210> 11807

<211> 399

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-D4

<400> 11807

attcccaggt cgacatagct aaaacactag gtgattaaac cgaatcacac agaacaaggg 60
 agtccttgct ctgataccaa ttgaaagtgc tagttatcga ctaggggggg gtgaataggc 120
 gatttttatg aaagtcttca aaacatgaga gttttgtaga aaaacaatag aaataaacct 180
 attgacatgc agcggaaggt agactacact agacaagcca tagccaagta ctcaatgaac 240
 tgaaaacacg aagactatta gcagctaggt agtatggatc aggatggaag atagtgtgaa 300
 gccaaactac attagtcatc acacagtga gtaaacaga taatgcaagc aggcaatgac 360
 ttcacaagga caaactgtaa gtaaagagaa gtaagaggt 399

<210> 11808
 <211> 418
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-E2
 <400> 11808

attcccaggt cgacatcgac ccagatgcgc atgacaagca ggcatgaat gagatcaatg 60
 cagctgcaag gatgaggggtg gctgcaaacg agaaggcgga ggctgagaag attgtccaga 120
 tcaagcgtgc cgagggtgaa gcagaggcca agtacctgtc tggcctcggt atcgcccgcc 180
 agcgccaggc cattgtggat ggctgaggg acagcgtcct gggcttctca gtcaatgtgc 240
 ctggcaccac tgcaaaggat gtgatggaca tgggtgtgat caccagtac ttcgatacta 300
 tgaaagagat tggcgcgtcc tccaagtctt cggcggtgtt catcccccat ggccctgggtg 360
 cgggtgcgca catcgccacg cagatccgtg acggtcttct tcaagggcaa tctgcctc 418

<210> 11809
 <211> 416
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-E4
 <400> 11809

attcccaggt cgacaacctc tacatatcac acatccaggt gaaccaagcc caaaagcaga 60
 ggcgccgtac ataccgtgct cacggacgca tcaatcctta catgtccaac ccctgccaca 120
 ttgagctgat cttgtcagag aaggaagagc ctgtgaagaa ggaggctgat aacgtcgtcg 180

caccaaggaa aactatctaa gctaccggaa tggatgcatt cgtccaacag tcttagttgt 240
 agttcttctc aagtaccttt gttggcagtg tttgttgctt ccttgatggt tttgttacca 300
 acattgagta aggatttggt aagggtgatg ctatccttgt gattgcgagt ggtctttata 360
 tgctaaaaca gtttcagata tttgagcatt agcacaccag aacttatttc tcagag 416

<210> 11810
 <211> 413
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-E5
 <400> 11810

ccggtccaga attcccgggt cgacatcgac gagagatttt cgatcaactt cgtctttcag 60
 tcgtcgccgc caagacatca acaatgccgc ccaagcctcc caagaagccc aaggcccaga 120
 agaaagagta cgacgagacg gatctggaga acttgaagaa gaagaaagag gacgagaagg 180
 ccgtcaagga gctcaaggcc aaggctgcgc agaagggccc gctcggaggg gccggtctca 240
 agaagagcgg caaaaagtga tctgctcggt ttccaaaact tattgtctgt acttagaaag 300
 cctctgaaga aaaatggccc acgaaaaact actttagata gttgattttg gtccagtgtt 360
 tgggggtctcc ctttcgtgta tgaattgagt ttttgacgac actaagccag aaa 413

<210> 11811
 <211> 428
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-E6
 <400> 11811

taccggtcca gaattcccgg gtcgacgaag acgacagaag ggagaagatg aagaggaaga 60
 ggtgatcact gaagaggggt tacaaccat attggataag ctgcgtgttc aacaccacta 120
 ttgcctttac tgtggatgca agaaatgtag ggaaaggctg cgtactatag acccaaagtg 180
 gtcggaccct tccctggacc ctgcgcaagc gggagctaca tgcaccagtt tgaatcagca 240
 ggagcactgg caaatgaatg ccctgggcct aatgaagatg atcactgatc cactctgtca 300
 atggtgacaa gggcactgtc cttccactg cagattatgg taaatgtgac atttgggata 360

ttcttgatta gttgactgtg tacgggtaac cttagtcctt aacacaatca ctgggtcata 420
gccaactg 428

<210> 11812
<211> 391
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-E7

<400> 11812

ggtccaggat tcccgggtcg acatacttcg cgaatggcag cagtattcac atctagcagc 60
atggcagcag accagttttt tttcttttcc tgcattgtgt tttcttttct tttttatttt 120
cttttagtatg gatctatctc tctgatcaag caagaagaga tcggcagctc cagcgacatg 180
acgagccgtt tccgggtttt tatgaaggga actatttggg gtcgcgcgga agcaaaacta 240
gctaggggtt attagtgtcg ctctagttcc gcttgctatt cctttcgtt gttcgtttgt 300
ttctttaagg attttattat caagggtgta aggctgggga tgtgcagcta gcttcagatt 360
caagcctgcc gtctcgctg cttgtacatt g 391

<210> 11813
<211> 425
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-044-Q1-E1-E8

<400> 11813

ggtccagaat tcccgggtcg accatacatt acagaggggg cagcagagcc ttgtcacatg 60
ggccacccca agactgagtg aagataaggt taggcaatgt gttgactcaa gacttgaggg 120
ggactatcct cctaaggctg ttgcaaagtt tgcagccgct gcggcattgt gcgtccaata 180
cgaagccgac ttccggccaa acatgagcat cgtcgtcaag gcgctccagc ccctgctgaa 240
tgcgcgagca gcccaccctg gggctgagca tgccggacgc taagctccac tccttgatatg 300
atataataga taaggaaaaa tgagccatca attgttggtt ttgccgggag cgtggcaagc 360
ggtttttgta catttgatg tattcttccc aagttgtaac cctcgagatt ctagtaccag 420
aaata 425

<210> 11814
 <211> 110
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-044-Q1-E1-F2

 <400> 11814

 tacggctgcg acaatactac atacagggca ttcattttta aagcattcac aaacttgaca 60
 aactataggg tgaatattca aaatagtcac gaatttgaaa aatacattaa 110

<210> 11815
 <211> 416
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-044-Q1-E1-F4

 <400> 11815

 attcccaggt cgacgacgga gaagaagaag aggcgatggc gtccgggtgg ggcacatcaacg 60
 ggaacaaggg gcggtgctac gacttctggc tggacttcag ctctgcatg agccgctgcc 120
 gccagccctc cgattgcggc ctctcccgcg aggactacct cgagtgcctc caccactcca 180
 aggagtcca gcgcaggaac aggatctaca aggaggagca acgtcagata agagctgctg 240
 ctgcgaaggg caaggaggaa gccgaaggag ctctgctgt tgcagctcac cactagcatc 300
 cgtttttatt tgctgcaagt gcttccatgt tcggctatga gcaaggcaat aatttcttaa 360
 acattctacc ctccactcc atgacttggt ctaaaatcat gagttcgata aacaac 416

<210> 11816
 <211> 432
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-044-Q1-E1-F6

 <400> 11816

 ggtccagaat tcccgggtcg acttccacca aagcgaaatc caccatctca tcgaaagacg 60
 ggacaccttt gcctctatca agtgggtatca gatttctagg ttgctcggtg agattttaca 120
 gtttttcgta gtttagatcg agtctgttct tcatacctac agtccacgaa aaagccacaa 180

aaaaaaatta gggtagttc atcatatccg aaccaatctg agcctttgca taatcttttt 240
 agggttttgc tttgttgaat ttgctgttg atcgtcgtgt ctagttgctg gtcttagagt 300
 ctagtctttt agagtttcga gttctggta taagtgtca cgccgccgcc gcaccatcat 360
 catcgcccct gccatctacc accaccgctc cgaatccgta tccatatacc aacaacaatc 420
 cgtgtccata ta 432

<210> 11817
 <211> 427
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-F7
 <400> 11817

ccggtccaga attcccgggt cgacgtccag caagaagctc aaggagtttt aatgggccac 60
 attaaaatct gtgagctcgc aggaacaggg cagtaacctt ttcattcccct tgcatactgt 120
 ttgaggaaag agttcttagt aaacagttga gaacttctgt atatctccat atggcattgt 180
 agaacttaaa aggtgattta caaagaagtg atttacacc tctctctgct atctataaaa 240
 attgtgacaa tggaagcttg catttctcca tatcaagaac gggagtatag attctaatacg 300
 cagagatttc tctcttttac agcgagggtca tgttccatct gagccttgct acatactgcg 360
 attctaatag catcttcttc cttaaatacta acagctcgat tctctgctcg tacataagaa 420
 ggcaatg 427

<210> 11818
 <211> 389
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-G3
 <400> 11818

cccgagtcga cggccattgg gtcattcaag gagcagttga tgtggacatt ggagccaatc 60
 cctctgctga ggggtggtgg gatgatgagg gtgtcgatga ccaggccgtg aagggtggtg 120
 acattgttga caccttccgt cttcaggagc aaactgcttt tgacaagaag cagtttatct 180
 ctcacatgaa gcgctacatc aagaacctct ctgccaagct tgaaggggat gacctagatg 240

ttttcaagaa gaatgttgag tctgccacaa agtatcttct tagcaagctc aaggaccttc 300
 agttctttgt tggcgagagc atgcatgatg atggcggcgt ggtgttcgcc tactacaagg 360
 agggagctgc tgateccaact ttctgtac 389

<210> 11819
 <211> 419
 <212> DNA
 <213> Triticum aestivum
 <223> unsure at all n locations
 <223> Clone ID: LIB31-044-Q1-E1-G6
 <400> 11819

ccggtccaga attccccgggt cgacaacccc gataagagtc gcacgtatct cgttctcagg 60
 acacaccgga taagcgaagc gtataggtac cgacataacc aaagttgcc aaggatggtc 120
 ccgcacggtg ctctagtttg gaccaacact tagacaagca ttgtcccagg ggggctaaaa 180
 taaagataac cctcagggtta attactccca agggaaaggt ttaagtggta tgcaaagtgt 240
 aaaaccaatg ttgggccttg ctggaggagt tttattcaag gcgaactgtc aagggggctc 300
 cataaatcac ccaaccgcgc aagggaagca naatccggca acataacacc ggtatgacgg 360
 gaactagggc ggcaagagtg gaacanaaca ccaggcataa ggccgagcct tccaccctt 419

<210> 11820
 <211> 431
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-044-Q1-E1-G8
 <400> 11820

ggtccagaac tcccgggtcg acgagatgac gaagcgcacc acgaaggctg gaattgttgg 60
 caaatatggg acacgttatg gtgccagttt gcgtaagcag atcaagaaga tggaggtgtc 120
 tcagcactcc aagtacttct gtgagttctg cgggaagttt gctgtgaaga ggaaagcagt 180
 tgggaatttg ggatgcaagg actgtgggaa ggtgaaggct ggcggtgctt acaccatgaa 240
 cactgccagt gcagtcactg tcaggagcac catccgtcgc ttgagggagc agactgaagc 300
 ataagttgct accggcagtg ttttgtcta aggaattatc tgttttttgc agtttagacg 360
 atactttgga ttcagttctg ttggctgttt agtcaagggt atctttgtac ttggtgccat 420

ggatggtttt g

431

<210> 11821

<211> 448

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-A2

<400> 11821

cgctgccgt caccggtccg aaattcccg gacgacggag aagaagcagt tgaacccgat 60

gcgggagatc aaggtgcaga agcttgctct caacatctcc gtcggggaga gcggcgatcg 120

cctcactcgc gctgccaaagg tggtggagca gctgagcggg cagtcgccag ttttctccaa 180

ggcgaggtag actgtcaggt cttttggcat tcgtcgtaat gagaagattg cctgctatgt 240

gacgatcagg ggtgagaagg caatgcggct tctcgagagt gggctgaagg tgaaggagta 300

cgagctcctg aggaggaact tcagtacac tggttgcttt gggtttggtta ttcaggagca 360

cattgatctt ggcatgaagt atgaccatc aaccggcatc tacggcatgg acttctttgt 420

tggtctggag ccagctggat accgtgtc 448

<210> 11822

<211> 392

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-B3

<400> 11822

cgctgccgt caccggtgcg agaattcccg gatcgacgct gccattgcta aagccaagga 60

aagtcctatg cctgatgctt ctgagctctt tacaaatgtc tacgttaagg gtttcggcgt 120

tgagtcattt ggcgagaca gaaaggagtt gagagctaca ctcccatagg tcaccaacct 180

gaagatgaag atgagtactc ttctaacacg ttgagatata gaggagaaat aagcatcagt 240

gaacaaaccc ttgggtgttg ctggcagttt ttgttgcaaa acgaacctgt atagagatgt 300

gatgtcaggg gaattcgttc cttatttggt ttgttttctt ttttttttct tctgcaattc 360

agtttaactg ctgctggctg gcttctatt ga 392

<210> 11823
 <211> 437
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-047-Q1-E1-B5

 <400> 11823

 cgctgcaag tacgggtcca gaattcccg gggccgcttt tttttttttt tttttttttt 60
 tttttttgct tcccaaagga aacacacaga aaactctcgt ccaaacattc acttctccag 120
 cgtaacaaag agtgggtattg ttatcttctg cacatattac atcctgcttg cggaatttgg 180
 cacatcgtgc tcgagtacaa atttgaaaag ggagcaggag acgaaaagaa tgacatttct 240
 atagtatata aaaagggagg agagagaaaa aaggtaaaac tatggatcca cgctattgta 300
 cagttatgct attagggggg tggttattca caagcagtgt cacaagatgc tgccaccaa 360
 ccataggtgc aggaagagcc aatacgccaa ggtcctagc cttgctcgcg gccgggttcat 420
 cagaatttgg ctccctg 437

<210> 11824
 <211> 200
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-047-Q1-E1-C1

 <400> 11824

 cgctgcagt caccgggtgcg agaattcccg ggtcgacgcc gacaccaat accggggcact 60
 atgtcatgct ccagacatgg acatgtgcc caagaacttc aaacgacatt cccaggttga 120
 catcgagatt gacatcaagc gtatcccaaa tacggtaact ttgattcagg acatggatga 180
 accacatgtg aaccccaaatt 200

<210> 11825
 <211> 381
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-047-Q1-E1-C2

 <400> 11825

 cgctgccgg tacgggtgcg agattcgcg gacgactcct tctacatgcg tgccaagatc 60

ttgggcagcg ctgggggaccg gcaaatcgcg agttcttacc tcgaacgcgt cattctggca 120
 aaccaggata aggagaactt cctcgtgccca ttactttctc gactaagtcc tccccacaat 180
 cggaccgtaa catatgaaat catacatttt gatcgggtatt cgtatagcat tccgtgtggt 240
 cagcagtgcac atacgttgca gggtcacctc catacgtcca atataatcca atgttacctc 300
 tatatactcg gaccgtcact cgagagtaca cgagacaaaag gtcaacaagg ttctgatga 360
 agttcacccc ggctacacac a 381

<210> 11826
 <211> 302
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-C3

<400> 11826

cgctgccat taccggtgcg agaattcccg gatcgacttc caccaaagcg atatccatca 60
 tctcatcgaa agacgggaca cttttgcctc tatcaagtgg tatcagattt ccagggttgct 120
 cgggtgagatt ttacagtttt tcgtagttta gatcgagtcg gttcttcata ccaatagtcc 180
 acgaaaaagc cacaaaaaaa aatttagggg tagttcatca tatccgaacc aatctgagcc 240
 ttgcataatc tttttagggt tttgctttgt tgaatttgcg gttgcatcgt cgtgtcaagt 300
 tg 302

<210> 11827
 <211> 307
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-047-Q1-E1-C4

<400> 11827

gcagggtggct ccatccagga agtggtgggc ctgagttccc gacggccccc gactgttact 60
 ttgaggcgaa gcgacagggc aggttgagac cacctangag agaggtgggc ctggccctgg 120
 tcggcgttcg cgaatactta acacacttaa cgagatcttg gtatttgatc tgagtctggc 180
 tactggctat acgcactaac catctacacg gggacattta tgggcactcg acgtcgtggg 240

atcagctgaa gccttcgtga cgtttagcgac tgagcggcgc ggcgccaggtt ggaccgcgta 300
acgcaac 307

<210> 11828
<211> 380
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-D1

<400> 11828

agctgcatgt acggtcaaga attcccggat cgacgaacac cagcagcaac tgataggtgt 60
aagccatgac gtctacacgc acatatttgg agcagagctc gcaacatata tacaacatat 120
aagtagagag attatgggtt ctgcgtatca gtatatatag attattaccc cggaaaagaa 180
tatagattat tctataaggt tactctatag atgaagaagt aattcatcag ctctagctaa 240
gctgggtata gaacagcagg tggtactgaa tatccgatct atgtacatgt tgtgtaatcg 300
agattattgt gggaatatgc taatctcctg aaaaaaaaaa aagaatggta gggaaaagaa 360
agcggccgct ctagaggatc 380

<210> 11829
<211> 420
<212> DNA
<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-D3

<400> 11829

cgctgccat taccgggcta gaattcccgg atcgacgaag acgacagaag gggaggtaag 60
gagtgttaca agaaataggg tggctaaact gacaatgcc gtcttctactg ccgtcttgggt 120
gatggccctg ttgatcactg catcatcttc aggagaagtt tcaacgacag aacgtgatag 180
ggatgcctcc aaagtgacaa agggtcacac ttctctttac catcttcaga tgcagagcca 240
cagcaggatg aggattctga cggattttct ggactacgac tacggaggag ccaactccaa 300
acacgatcca cacaggaggc ccgggaatgg gggacattag gcactagata atagctagct 360
ctcccaacca ttcgacagag tccggtgttt tggactgggtg tcatgtgtgt gcgtattcac 420

<210> 11830

<211> 363
 <212> DNA
 <213> Triticum aestivum

 <223> unsure at all n locations
 <223> Clone ID: LIB31-047-Q1-E1-D4

 <400> 11830

 ggtcctaaat tcnccgggacg acgaaacttc ttcttttttta gcagagcttc caggcaagca 60
 aacccccctt gagcattctg atatcgccca tttctttccc tctcatgctt gcattagaac 120
 tgctactgct ttatgtatga tcctactctg atgcatagcc tgttttggtta cctgctttca 180
 taccttacct gcttataccta aactgcttag tatagggttg atactgatcc atcagtgacc 240
 cccaccttgt ccaagttgcc tcgctttatg ttagatgact cgatcaacgt gatcgatgct 300
 caggccccga caccgcacat ccccccccc ccttagttgt aggactctgt acagttacca 360
 tcg 363

<210> 11831
 <211> 425
 <212> DNA
 <213> Triticum aestivum

 <223> Clone ID: LIB31-047-Q1-E1-E1

 <400> 11831

 cgctgccat taccgggcaa gaattcccg atcgacatcg agccggatgc gcatgtcaag 60
 caggcgatga atgagatcaa tgcagctgca aggatgaggg tggctgcaaa cgagaaggcg 120
 gaggctgaga agattgtcca gatcaagcgt gccgaggggtg aagcagaggc caagtacctg 180
 tctggcctcg gtatcgcccg ccagcgccag gccattgtgg atggcctgag ggacagcgctc 240
 ctgggcttct cagtcaacgt gctggcacc actgcaaagg atgtgatgga catggtgctg 300
 atcaccagct actttgatac tatgaaagag atcggcgcat cctccaagtc ctcggcggtg 360
 ttcaccccc atggccctgg tgcggtgcgc gacatcgcca cgcagattcg cgatggctct 420
 cttca 425

<210> 11832
 <211> 413
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-047-Q1-E1-E3

<400> 11832

cgctgcagt taccgggcca gaattcncgg atcgaccctt tctacatgcg tgccaagatc 60
 ttgggcagcg ctggggaccg gcaagtcgtg agttcttacc tgaaggcgt cattctggca 120
 aaccaagata aggataactt cctcgtgcct tactttcccg agtaagtctt cccctcaacc 180
 gccccgtaac atatgaattc ttagatttcg atgggttttc ttttaacatt ccgtgttttc 240
 tgcagtgaca cacattgcac gtcctcctc ctaagcccca aatattccat ggccacgtat 300
 ttcgaccgg accgtcagtc gaacatagac tacacaaatg tcaagaagg tcttgatgat 360
 gttctcccg gctacgtcaa atctggaggc actttcaaca ggctattcg taa 413

<210> 11833
 <211> 434
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-E4

<400> 11833

cgctgccgg caccggtgcg agaattcccg ggacgacgaa ggagacggac gccgctagct 60
 cgtagatgga tgtttatgtg cggcaaactg caagggtgat gcatgcgcgt gttttactta 120
 tgggtatgtg tccctatttt caagagtcct gtacagatag agattgtatg catcagatca 180
 gatcgtaatt cttatctcaa cttttaaaca tgtacgtaaa actcaaaata tagttacgac 240
 ccaaccaaag ttattccttt taccggatct atctattgaa caattaaacc tgcacatttt 300
 gtgaaactag caacaagccc ggatcttgtg gttcaacata aatcttgcg gagtaacatt 360
 taattttgat ttgagcatgg gtactggaag acaagtaaag tttcatttag ttgagattac 420
 cgtatgaaat attg 434

<210> 11834
 <211> 428
 <212> DNA
 <213> Triticum aestivum

<223> unsure at all n locations
 <223> Clone ID: LIB31-047-Q1-E1-F1

<400> 11834

acgcctgccg ttaccgggtcc taaattcneg gatcgactca aagatcctct ccaaggtcat 60

tgagtactgc aagaagcacg tccaggccag ccccaaaccg gctgactccg gcgccgtcac 120

tgacgccaac tctccacct cactgcagc cgccgcccc gtcgaggacc tcaagagctt 180

tgacgtgag tttgtcaagg tcgaccgggc caccctcttc gacctcatcc tggctgcaaa 240

ctacctcaac atcaagggat tgctcgacct tacttgccag actgttgccg acatgatcaa 300

ggacaagact ccggaggaga tccgcaagat ttttaacatc aagaatgatt tcacacccga 360

ggaggaggcg gaggtccgca aggagaacca gtgggctttt gagtgaaagt agtagcatct 420

aggcaatg 428

<210> 11835

<211> 425

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-F3

<400> 11835

attccccggt cgacatggcc attgcgtcgc gctcgcccag ctccgacatc gccaggtct 60

tcategacaa gctcgagctc cagcccatgt tcgtcgcaaa ggaaatattc tccagctgga 120

ctcacaagac agagcatttc caaaagatcc acagaaaaac tgggggttcca tacaagtcca 180

tgccgttctt tgacgatgag gacaggaata ttcaatcggc atcgaaaatg ggagttacga 240

gtgtttctagt aaacaacgga ttgaatctcg acatgtttta gttgggcctc agtaatttctg 300

ctactactgt tgctgcatct gaacccgcac ctgcaccaga ggacaattaa ctttatattg 360

tacaagtaaa aacagcagac agggaaaacg cccatgattt acgggatacg tgtggaaaaa 420

taaac 425

<210> 11836

<211> 397

<212> DNA

<213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-F6

<400> 11836

cgctgctag taccggtcca gcattcccg gtcgacttcc accaaacaat atccatcatc 60
 tcatcgaaaa atcaggaccc tcgcctctat caagtggat cagatttcca ggttgctcgg 120
 tgagatttta cagtttttcg tagtttagat cgagtctggt cttcatacct atagtccacg 180
 aaaaagccaa aaaaaaaatt agggtttagt cagcccatcg gaaccaatct gaggccttgca 240
 taatcttttc tgtatttget ttgttgaatt tgcggttgca tcgtcgtggt cagttgctgg 300
 tcttagcgtc tagtctttta gagtttcgag ttctgttcac aggttgtcac gccgtcaccg 360
 caccatcatc atcgccctgc caactaccag cagcgct 397

<210> 11837
 <211> 429
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-047-Q1-E1-F7
 <400> 11837

taccggtcca gaattcccg gtcgacttcc atgtggatgg gaaaaagaaa gtacaaaaac 60
 tataaaataa aataaagtta aataataaaa ttccccatat tatgcgtggt tcgatctcat 120
 cgccgcacaa gtctcatcac aattgcagac gtgttttacc ccttgagtcg cacgtagttt 180
 gagatgcacg caattgcata cgtgttgac cctcgtagtt gcatgaattc cgatagttct 240
 agttgtacgt aagggaaca agagtttttg tgacaaataa aaagaaaagt caacaatttt 300
 tctgtcaacc tgatgtagga aacatagggc atatcaacat tacgaaaata tattcctggg 360
 taatacatga atgaacaat tttttttaga aaaaagaaca ggcaacatac aaataaacia 420
 aaaatccat 429

<210> 11838
 <211> 456
 <212> DNA
 <213> Triticum aestivum
 <223> Clone ID: LIB31-047-Q1-E1-G1
 <400> 11838

cgctgcaat taccggtgcg aaattcccg gacgacatgg agacggtatc aagagagaac 60
 ctgagacggc tgttcatgta cataaacaag ctccctctga tcgtgcctga tgtcatcttc 120

agtgtctacg attcccatcat aaaatgaatg gtgcggcact ccccttatca aggtcctcag 180
 ccaagtgtccc agctcctttt aatctatttg ggaagctccc ccaagctctc tggtttccat 240
 gcctgtaccc aagcccttcg aagtgcctga actgtcgcac ttgtagtcgc aaaccttttg 300
 tttgtgcttt agatcttatt tagtgcgtag ctgcatgctt aagctaagca tatccagcca 360
 gtttgtatat atctcacatg gctctgttaa tagagaactg tagctggccc caaatggagg 420
 cgggtgctgtt taatatactc ccatgtcccc ccccc 456

<210> 11839
 <211> 442
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-G8

<400> 11839
 gccagtaccg gtccagaatt cccgggtcga ctactacatt cccgtgttct tcttgagggt 60
 ttctgtagtt aaacctgagg agttatgtga atcagcgcac ctctgcccaa agggggcagc 120
 gactcggctg tccacacgag gggatgcctg tgggtctatgc catcatgttc ttgttgagggt 180
 tcttatgatg cttaaggatc ccaacaccaa gctggagata gtccgggttc ttttcaaaac 240
 atgcagcaag gcgaagaact acgaaccgca gtgcaagagg cttgtccttg actacatccc 300
 actgattctg gtgaagaccc aggagttcct tgagacgacg gacgtctgct ttgcgacaca 360
 tgctgtaaa acatgcatgc aagcaaccat tcctctctcc gccgctttgt gaagaacaaa 420
 tatgttgggg atatacaggg gc 442

<210> 11840
 <211> 454
 <212> DNA
 <213> Triticum aestivum

<223> Clone ID: LIB31-047-Q1-E1-H3

<400> 11840
 cgctgtcccg taccggctct agattcccgg gtcgacatat ggggagctaa tgcggaggag 60
 ttcgatccat cgaggtttgc agatggcaag agctaccacc ttggcgcgta cttccccctt 120
 gggattggcc ctgccatctg tgttgggcag aatctcgcga tggttgaggg aaagctggcg 180

cttgcaatgg tctccaacg gtttgcgctt gatgtctcga cgtcctatgt tcatgcgccg 240
atgaaggtga tgaccctcca accccagtac ggtgctcaac ttcttgtcca caagatctga 300
accttgtgtg gtgctgtcta tggagttggg aggtttggca gcaaggata tgtgaatgtg 360
atgtccccgc gtctcctgta tctctgttga caacttgtcc gaagtttgtc ctgaaaatgt 420
gtacagaaag tagtatatgc ttgcgcacag taaa 454